

VOL 82

NO. 6

textile bulletin

JUNE • 1956

Ike's popularity does not extend
to foreign trade 66
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NON-FLUID OIL

TRADE MARK

REGISTERED

CLEAN WEAVING!

NON-FLUID OIL — the lubricant-leader in textiles—assures clean loom operation. Spattering ordinary oils damage goods in process—while **NON-FLUID OIL** stays where applied and keeps off yarn and cloth.

NON-FLUID OIL gives constant protection against oil-spot loss to 7 out of 10 leading mills. Besides providing clean, better lubrication, **NON-FLUID OIL** keeps costs down by outlasting ordinary oils 3 to 5 times.

For general oiling of looms, A-No. 00000 Grade **NON-FLUID OIL** is recommended. Write for free testing sample and useful Bulletin. Proof is in performance.

NEW YORK & NEW JERSEY LUBRICANT CO.

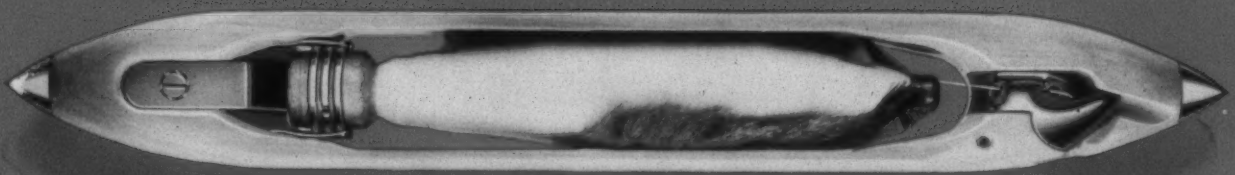
292 Madison Avenue, New York 17, New York

Southern District Manager: Lewis W. Thomason, Jr., Charlotte, N. C.

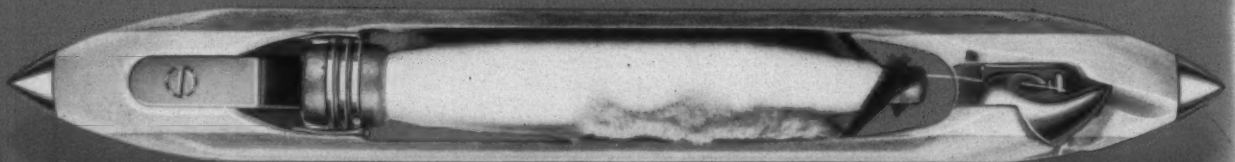
WAREHOUSES: Atlanta, Ga., Birmingham, Ala., Charlotte, N. C., Chicago, Ill., Columbus, Ga., Detroit, Mich., Greensboro, N. C., Greenville, S. C., Providence, R. I., St. Louis, Mo., Springfield, Mass.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of **NON-FLUID OIL** often prove dangerous and costly to use.

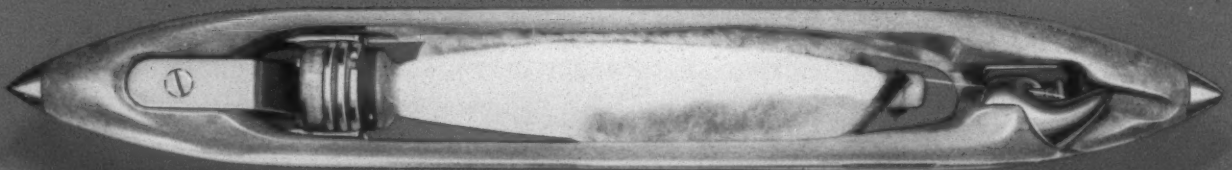
"TRU-FLIGHT"



"TRU-FORM"



"TRU-MOLD"



REDUCE WEAVING COSTS WITH DRAPER SHUTTLES

Longer shuttle life and reduced maintenance are two distinct ways in which Draper shuttles aid in lowering weave room costs. The desire to furnish a shuttle that will meet exactly the conditions under which the mill plans to use it has resulted in the manufacture of a wide variety of Draper shuttles.

"TRU-FLIGHT", "TRU-FORM", and "TRU-MOLD"

shuttles incorporate the finest in materials and design. From all-dogwood to the completely new molded construction, each is engineered to offer *greater shuttle economy and improved loom operation.*

Lower *your* weaving costs . . . standardize on Draper shuttles, today.



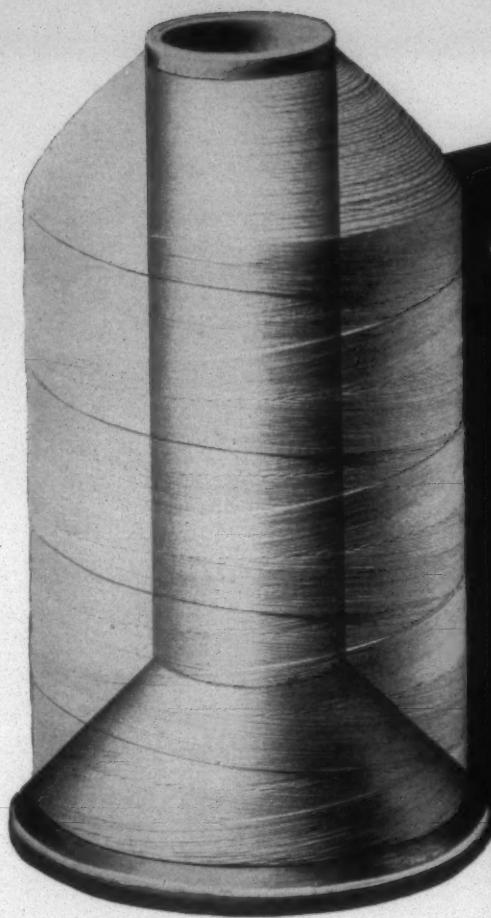
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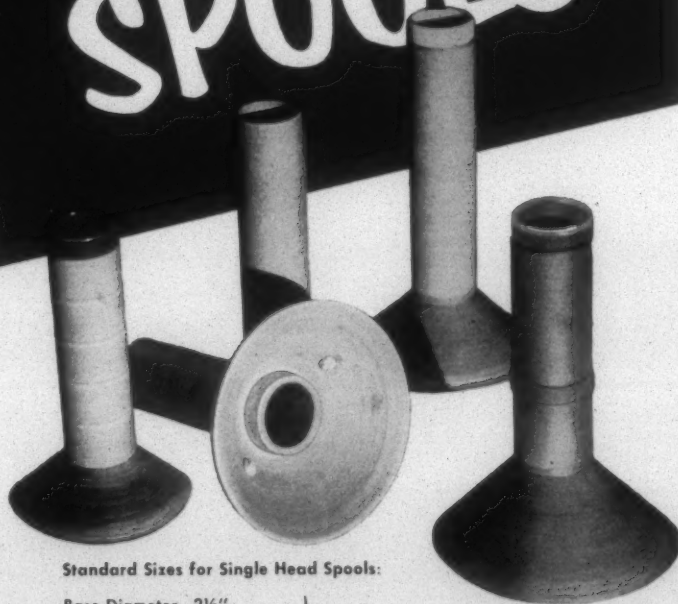
Thrifty

SONOCO SINGLE HEAD

SPOOLS

standard of the world!

A SONOCO development widely accepted by the industry for economical packaging of industrial threads. The tapered base permits even and free delivery without "snagging" during "take-off." Choice of smooth, Velvet or Unitex surface; ground ring, deep score or printing on the barrel. Can be supplied with metal ring in base of barrel for increased strength. Colored lacquer tips can be applied where required for identification. Consult your SONOCO sales-engineer or write direct for complete information.



Standard Sizes for Single Head Spools:

Base Diameter—2½"
Base Diameter—2¾"
Base Diameter—3"
Base Diameter—3¼"
Base Diameter—3½"
Base Diameter—3¾"
Base Diameter—4"

Barrel Lengths—2¾"
Barrel Lengths—4¾"
Barrel Lengths—5¾"

3½" and 4" base spools available with barrel lengths 6¾" long, also special barrel lengths for all bases. Double head spools can be supplied to meet your specified requirements. Plastic Single Head Spools also available in standard sizes shown above and in a variety of colors.



SONOCO

PRODUCTS COMPANY

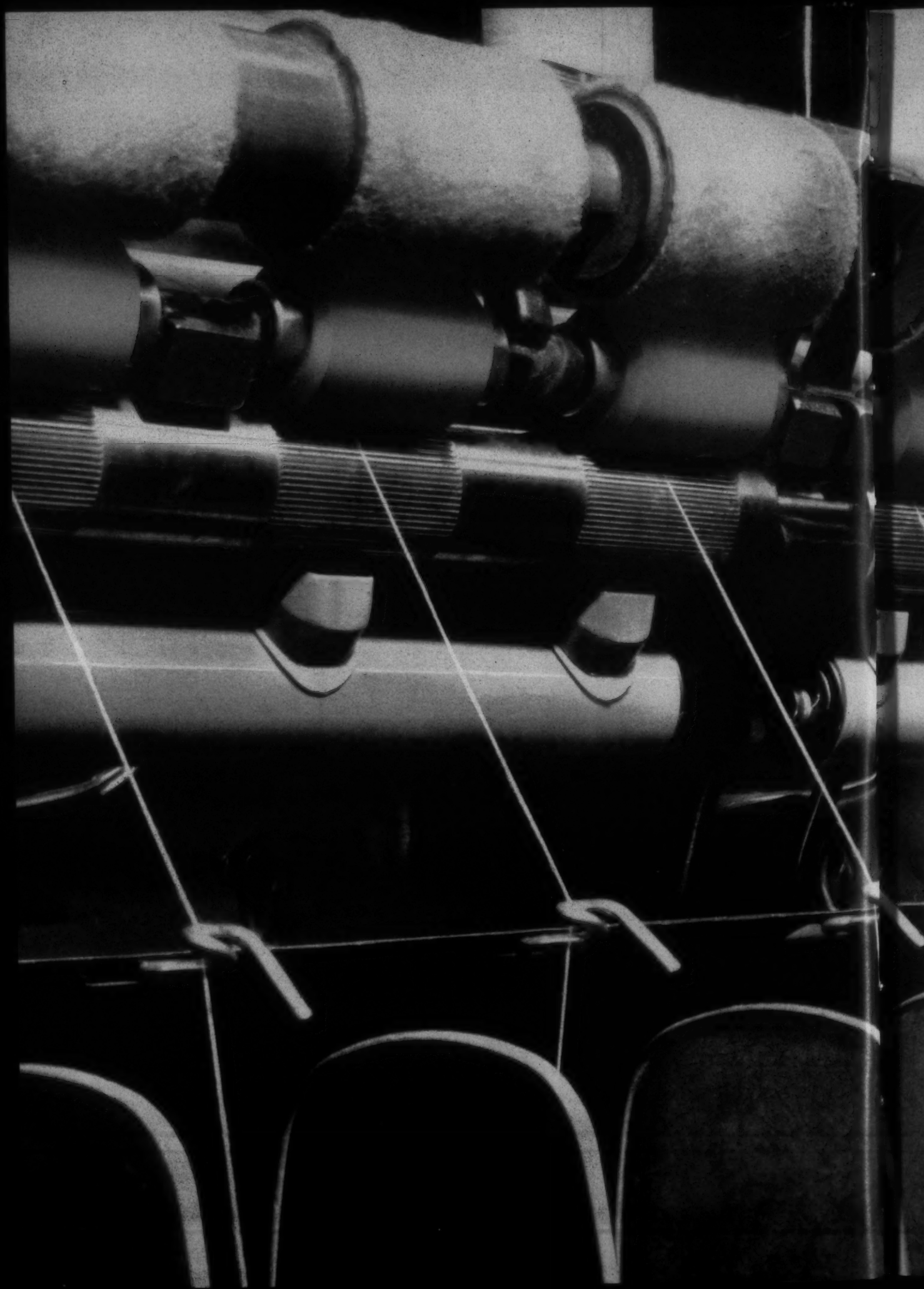
MAIN OFFICE — HARTSVILLE, S. C.

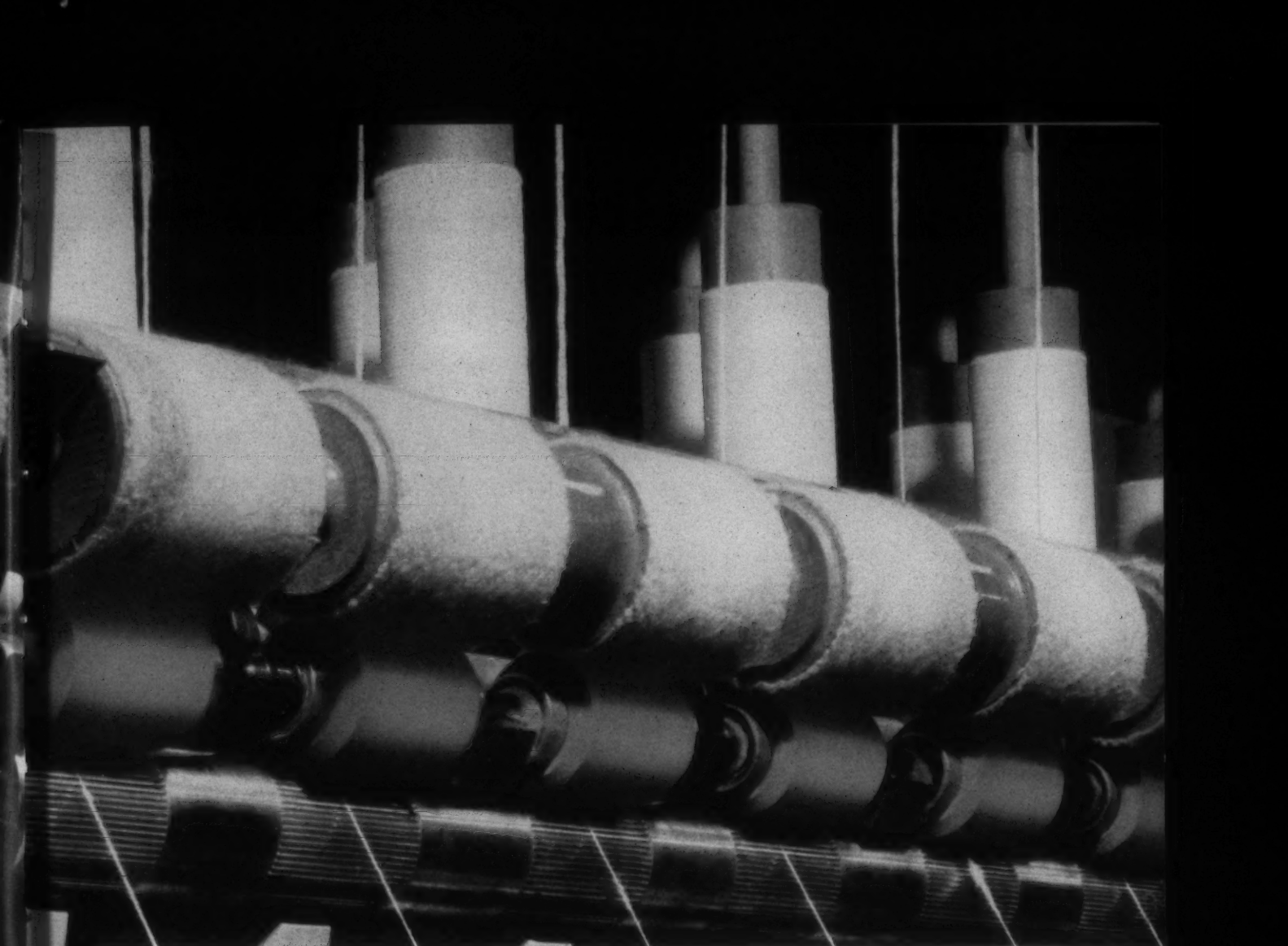
MYSTIC, CONN. • AKRON, IND. • LOWELL, MASS. • PHILLIPSBURG, N. J.

LONGVIEW, TEXAS • PHILADELPHIA, PA. • LOS ANGELES, CAL.

GRANBY, QUEBEC • BRANTFORD, ONT. • MEXICO, D. F.

DEPENDABLE SOURCE OF SUPPLY





Not a lap-up in sight!

... BECAUSE
THEY'RE USING
ARMSTRONG J-490
ACCOTEX COTS
—WITH BUILT-IN
LAP RESISTANCE

Armstrong J-490 Accotex® Cots reduce lap-ups no matter what you're spinning—natural fibers, synthetics, or blends.

The reason? J-490 Cots have built-in lap resistance. They're made of a patented synthetic rubber compound that eliminates the basic cause of lapping—electrical attraction between cot and fiber. In fact, the J-490's actually tend to *repel* broken ends.

There are more good reasons for using J-490 Cots, too. They're exceptionally smooth and clean running, with no rough fillers to pull short fibers from stock and cause excessive ends down. And just an occasional re-buffing keeps the J-490 spinning like new . . . turning out strong, uniform yarn for years.

Ask your Armstrong man about a test side of the J-490's. Or write to Armstrong Cork Co., 6506 Davis Ave., Lancaster, Pa.

If eyebrowing is a problem in your spinning room, try the Armstrong NO-742-S Cot. Its "constant friction" surface packs waste well back under clearers—stops eyebrows from forming.

Armstrong ACCOTEX COTS

... used wherever performance counts

Treat your cottons for life

RESLOOM[®]

RESLOOM E-50, the Monsanto cyclic urea resin... modifies fibers for optimum results!



RESLOOM: REG. U.S. PAT. OFF.

Four words summarize the remarkable effectiveness of Resloom E-50 when used to finish cottons: *It doesn't wash out!*


After repeated launderings, cottons treated with this Monsanto cyclic urea formaldehyde resin require little or no ironing. They also retain their crush resistance and dimensional stability.

The reason for the outstanding durability of Resloom E-50 is simple. Instead of reacting with itself, it is designed to react exclusively with the fabric. All active ingredients diffuse

into the interior of cellulosic fibers and actually modify fiber characteristics.

Call in Monsanto for expert counsel on how to "treat your cottons for life." In addition to Resloom E-50, Monsanto also supplies melamine finishing resins, tradenamed Resloom HP and M-75, as well as Catalyst AC for stepping up curing efficiency. Write on your letterhead for technical bulletin and experimental samples. Monsanto Chemical Company, Plastics Division, Room 1020, Springfield 2, Mass.

from a kernel of corn through chemistry...



higher
weaving
efficiency

minimum
seconds

NALEX[®] a warp size for spun rayon and worsted yarns

NALEX is starch changed through chemistry. It is noncongealing. Because of this, Nalex improves penetration; prevents hard size; and forms stronger, more continuous films on spun rayon or worsted yarns.

The result?

Seconds are reduced. Efficiency is increased—even at low humidities.

NALEX is compatible with resins and synthetic binders. Highly recommended for sizing the new blends of natural and miracle fibers.

STARCHES

National

RESYNS[®]

STARCH PRODUCTS INC.

National Starch Products Inc., 270 Madison Ave., New York 16, N. Y. • Atlanta • Boston • Philadelphia
In Canada: National Adhesives (Canada) Ltd., Montreal

NEW TWISTS

in stretch yarn processing

*Universal aids
your stretch yarn
processing in
three important ways*

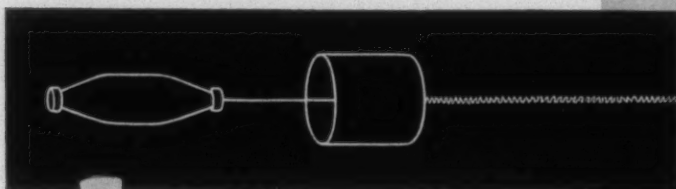
To aid you in producing top quality stretch yarns, with top sales potentials, Universal brings you:

1. *Special Leesona Machines*, developed for fast, cost-cutting production of all the popular new bulk and stretch yarns.

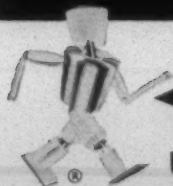
2. *Universal's Yarn Evaluation Department*, which has been established to: set up standards for processing and testing stretch yarns; provide mills with samples; suggest test procedures and appraise samples from mills; and check market possibilities for new products.

3. *Easy Financing*, through the Leesona Pay-As-You-Profit Plans for long-term purchase or lease of new machines without impairing your working capital.

The new "magic" yarns produced on Leesona special machines are used in many types of garments for men, women and children. Typical samples are shown at right. For further facts on Leesona machines and Universal's complete stretch yarn service, see your Universal representative or write direct.



23.5.32

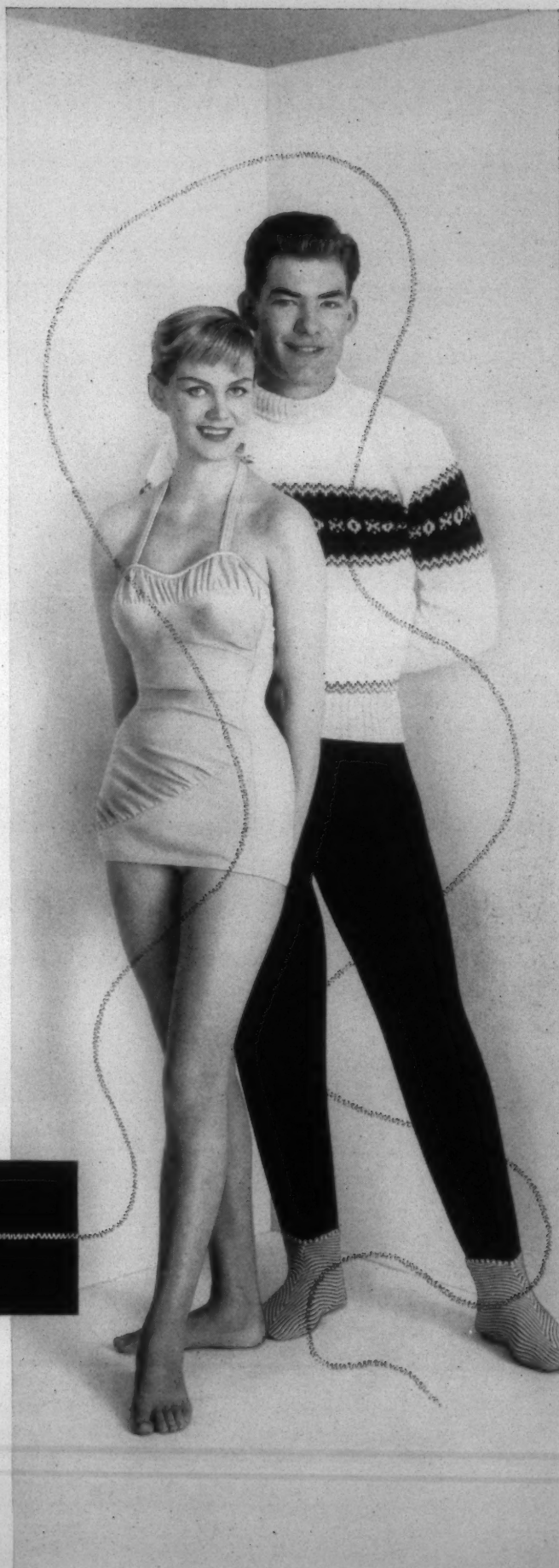


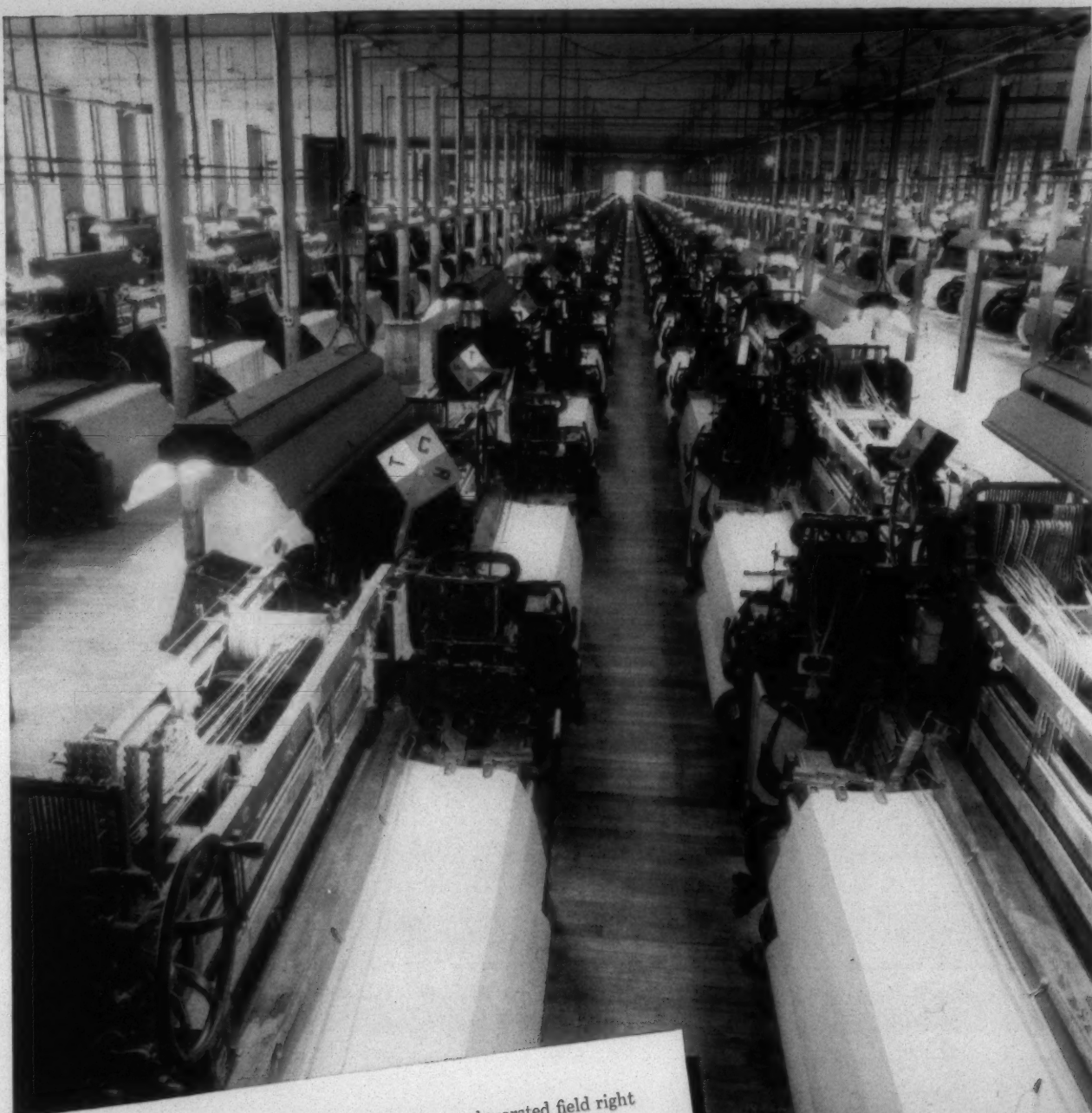
**UNIVERSAL
WINDING COMPANY**

P. O. BOX 1605, PROVIDENCE 1, R. I.

Sales Offices:

Boston • Philadelphia • Utica • Charlotte • Atlanta • Los Angeles
Winding and Twisting Machinery for Natural and Synthetic Yarns





Sharpest Question in the woolen and worsted field right now is this: "How to be competitive in pick-and-pick fabrics?" And the answer is this: C&K's W-3 and W-3A SELECT-A-PIC LOOMS . . . which permit automatic bobbin-changing operation with automatic work-assignments on many fabrics which would otherwise be woven non-automatically. Several hundred SELECT-A-PIC LOOMS, in highly profitable operation today, have woven performance records which should be keenly interesting to you. We'll tell you about these records any time you like. Just write:

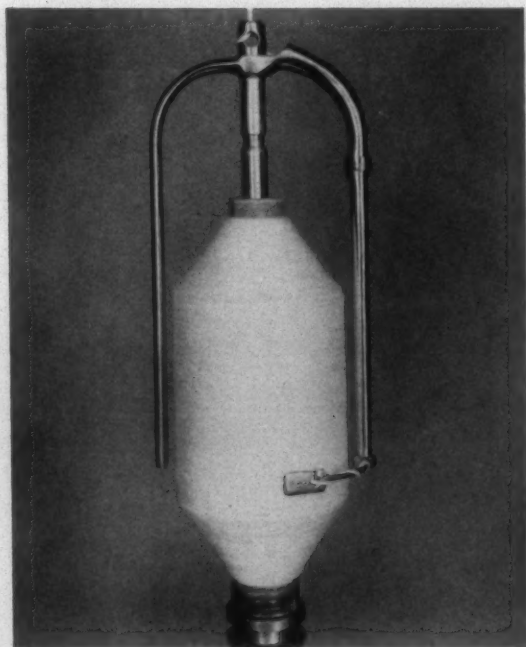
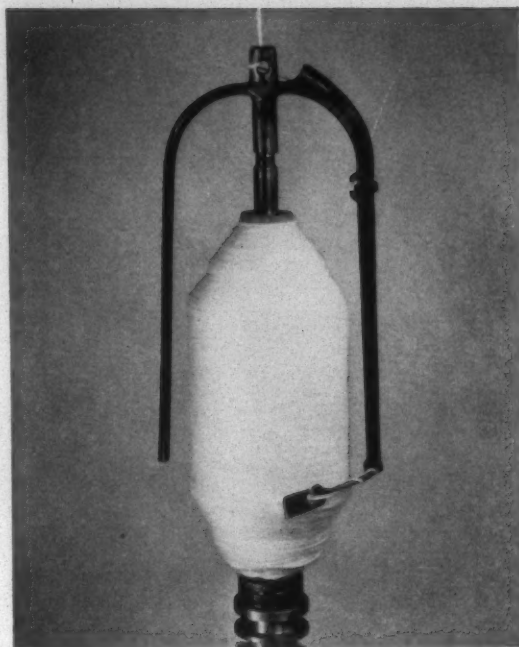
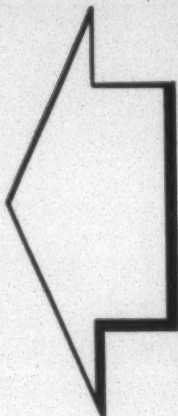
CROMPTON & KNOWLES
Corporation

WORCESTER 1, MASSACHUSETTS, U. S. A.
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watch

for this danger signal!

When you see tangled bobbins and frequent ends down . . . that's your danger signal! Worn pins, barrels and spindle tops slow production—cost you money. Rusty, burred flyers out of balance add to production costs. Step up your production. Let Norlander-Young rebuild and dynamically balance your spindles and flyers.



Your production line will hum after Norlander-Young rebuilds your flyers and spindles. Our experts will prove to you that precision workmanship and years of experience pay big dividends in higher production.

Norlander-Young has all flyer finishes . . . Black, Cadum, Nylize and Burnish . . . whichever you prefer. We will give you the finest workmanship and the quickest service in the business. Your spindles and flyers will not only look new . . . when Norlander-Young rebuilds them . . . they are as good as new!

Nearly Fifty Years of Service and Quality

norlander-young



Twenty-five Years in the South

machine company

GASTONIA, NORTH CAROLINA

FLUTED ROLLS FOR SPINNING • FLYER FRAMES • COMBERS • DRAWING & LAP MACHINES



*to National's line of
non-dusting direct dyes*

NATIONAL SOLANTINE® BROWN 4RLVF

Here is an excellent money-value when you need moderately bright shades of red-brown for moderately priced rayon and cotton suitings, hosiery, bathing suits, cotton rugs and carpetings, etc.

NATIONAL SOLANTINE BROWN 4RLVF combines good light-fastness with very good fastness to washing, water and sea water bleeding, rubbing, acids. It has excellent fastness to perspiration, water spotting and hot pressing. Its high tinctorial value and interesting red-brown shade commend consideration of this non-dusting National Dye for moderately-priced lines.

For a working sample, price and delivery quotations get in touch with our nearest office.

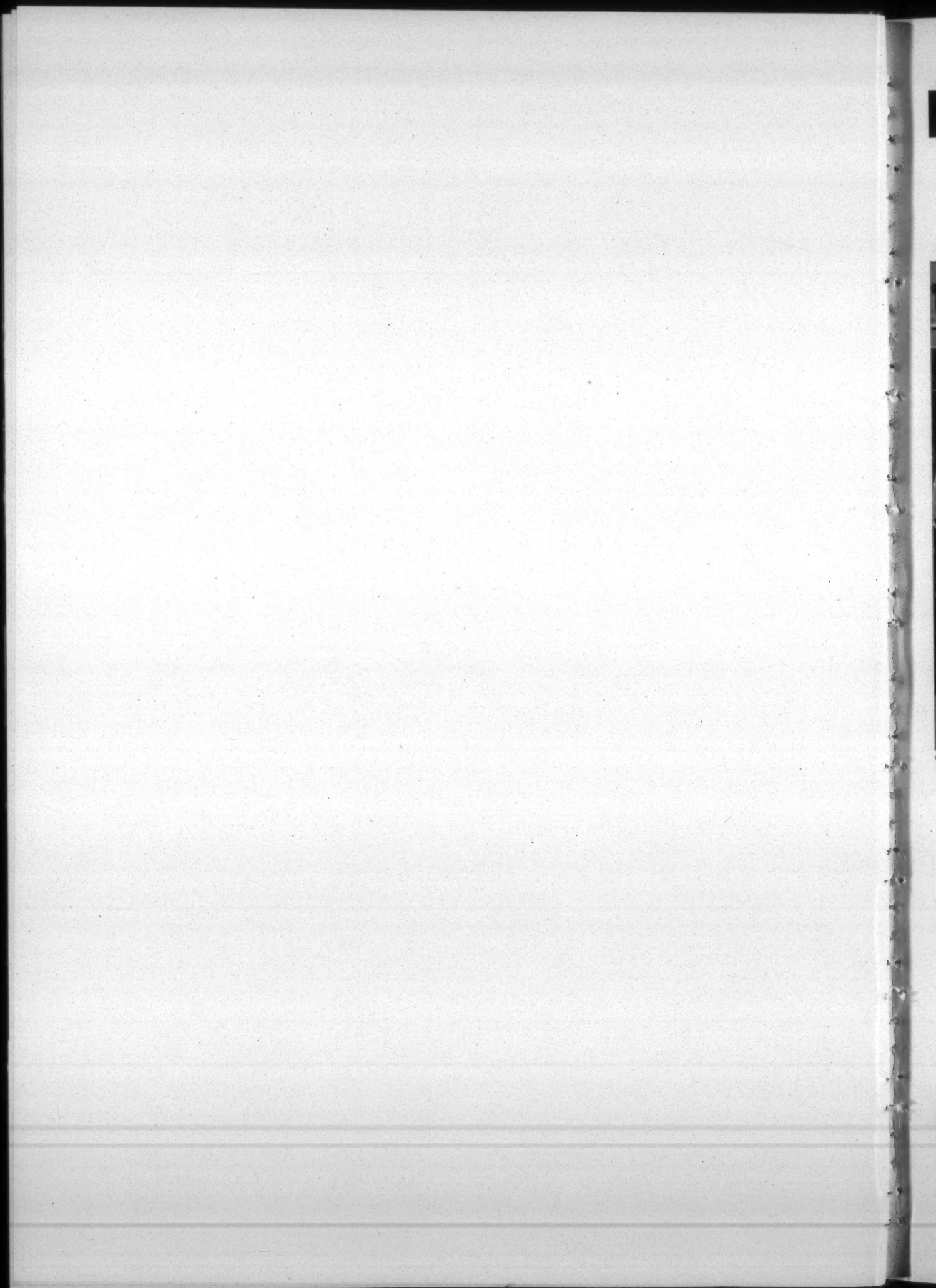
NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

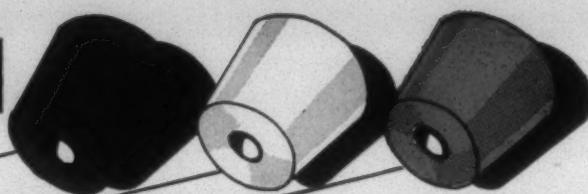
40 RECTOR STREET, NEW YORK 6, N. Y.

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AUTOCOPSER



The World's Most VERSATILE QUILLER

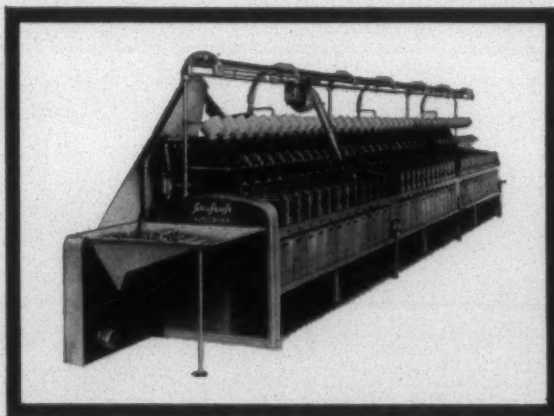
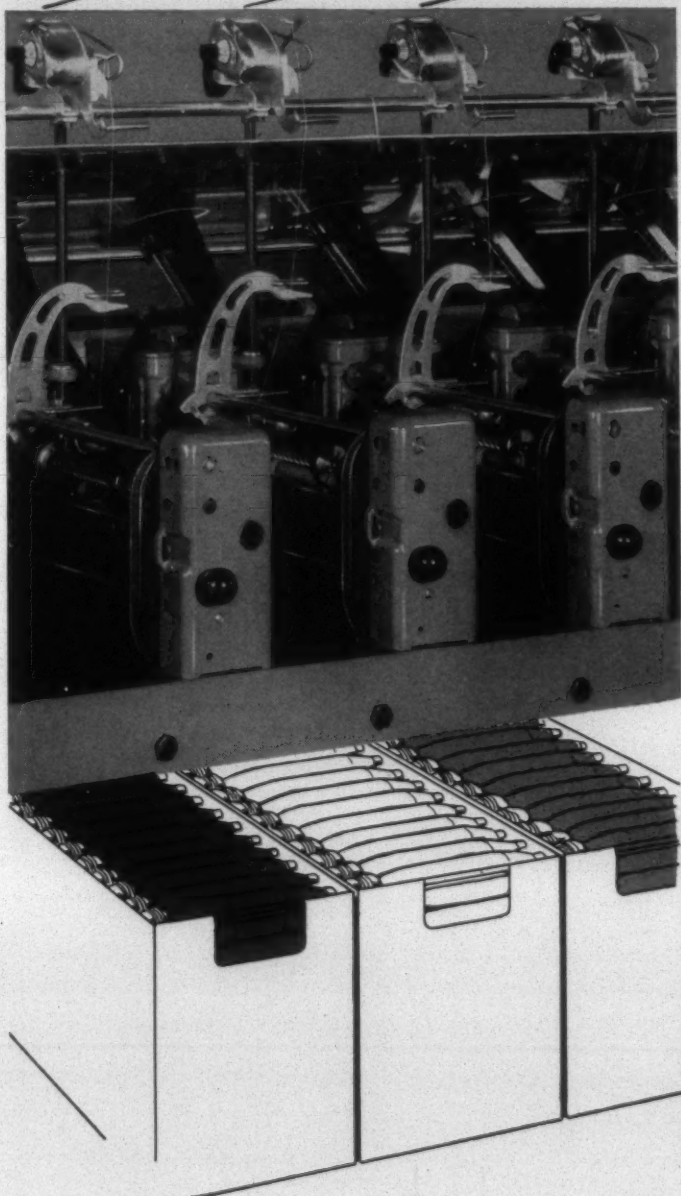
*Textile Mills problem No. 1
in a buyers' market:*

ONE STYLE TODAY

ONE HUNDRED STYLES TOMORROW . .

Only with the AUTOCOPSER in your quiller room can you follow the market trends at maximum efficiency, and lowest possible costs.

Write today to The Terrell Machine Co., Charlotte, N. C. for booklets explaining the outstanding features of the AUTOCOPSER!



Schlafhorst

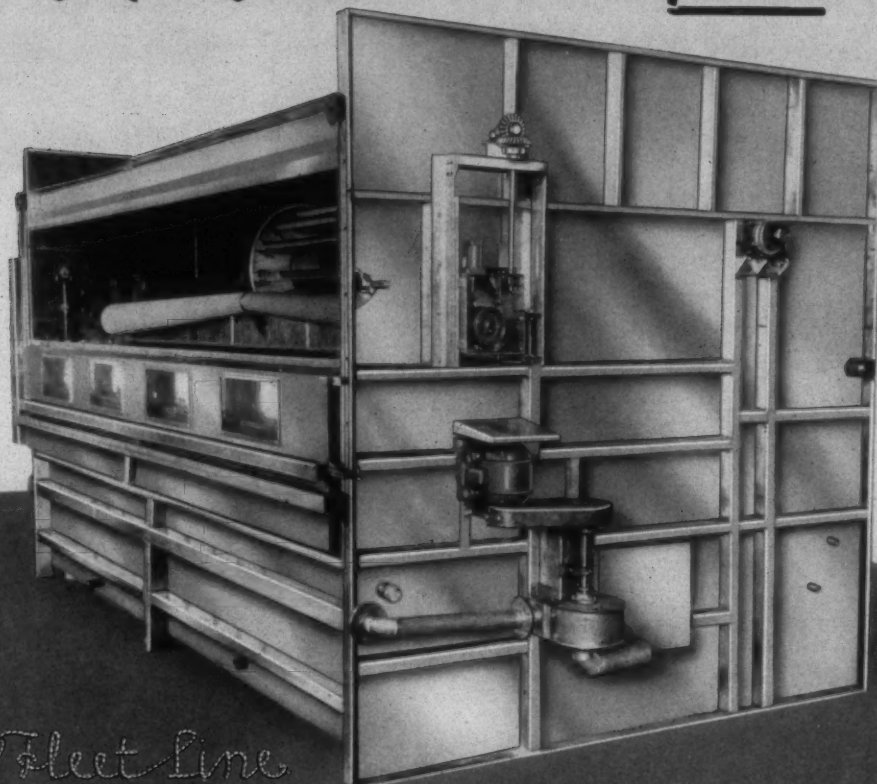
AUTOCOPSER

First Name in Automatic Quillers the World Over



SOLD AND SERVICED BY THE TERRELL MACHINE COMPANY, INC., 3000 S. BLVD., CHARLOTTE, N. C.

For rug dyeing headaches - the proved cure is



The Fleet Line

RUG DYE KETTLE

This cost-cutting equipment has been thoroughly proved in several years of service. It enables you to do even, level, quick dyeing — side-to-side and end-to-end — of heavy materials in open width . . . cotton or any synthetics, whatever the demand may be . . . richer, thicker goods as required . . . eliminating the high cost of seconds due to uneven dyeing. You can —

Dye many varieties of weaves, keep up with the constantly changing demand for dyeing various synthetics and blends.

Double or triple the speed of your operation on many rug types by *simultaneous multiple dyeing* of different widths — with special guiders enabling you to run through various widths of rug fabric at the same time.

Write for bulletin giving all features of R & L Stainless Steel Rug Dye Kettle. We advise on all dyeing equipment problems.



RIGGS AND LOMBARD INC.

FOOT OF SUFFOLK ST., LOWELL, MASS.

Agents: Paul A. Merriam Company, P.O. Box 86, Providence, R. I., Albert R. Breen, 80 E. Jackson Blvd., Chicago 4, Ill., Larry T. Nelson, 2824 S. W. Montgomery Drive, Portland, Ore., F. W. Warrington Co., 611 Johnston Bldg., Charlotte, N. C., A. Harold Zayotti, Jr., P.O. Box 125, Riverton, N. J., H. E. Mott Co., Limited, Brantford, Ontario, Canada.

R & L Rug Dye Kettle
proved in service in
many plants

ADVANTAGES

Dyes open widths or rope
Multiple width dyeing
More level dyeing
Faster dyeing cycle
Lower dyeing costs
Lower labor costs
Proved, assured results
Easier maintenance



Here's On-The-Job Help for Southern Textile Men

Helping solve your problems, cutting your costs, improving your processing . . . bringing you the newest in textile know how, is your Houghton Man's job.

You can be sure the warp sizes, softeners, detergents, wetting agents, wool oils, finishes and other quality Houghton products your Houghton Man makes available to you will do everything he says they will do. They are developed in Houghton's Textile Laboratories by men who devote their full interests and energies to producing new, better textile processing

products. And, in addition, every product must prove itself in actual use before Houghton will allow it to be sold to you.

Ask your Houghton Man to show you how Houghton textile processing products can bring new efficiency to your mill. Call him today (see list of offices below)—or write E. F. Houghton & Co., 303 W. Lehigh Ave., Philadelphia 33, Pa.

TEXTILE PROCESSING . . . a product of . . .

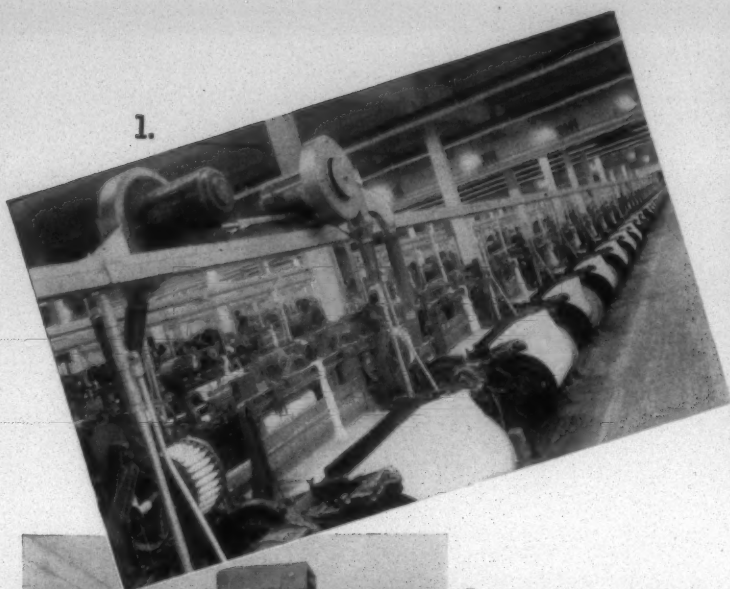
E. F. HOUGHTON & CO.
PHILADELPHIA • CHICAGO • DETROIT • SAN FRANCISCO



Ready to give you
on-the-job service . . .

serving Southern textile men through these regional offices

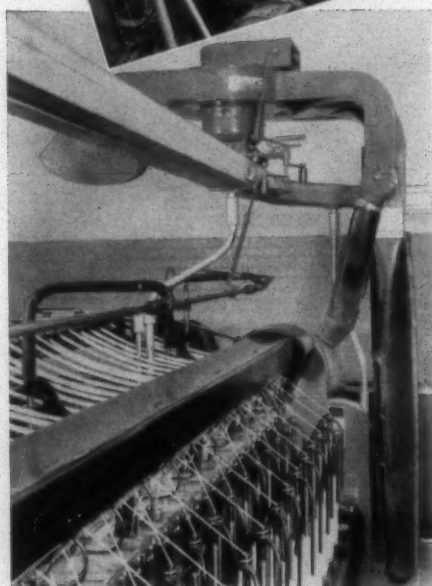
ATLANTA • CHARLOTTE • CHATTANOOGA • GREENVILLE • HIGH POINT • JACKSONVILLE • KNOXVILLE • MEMPHIS • NEW ORLEANS • RICHMOND



1.



2.



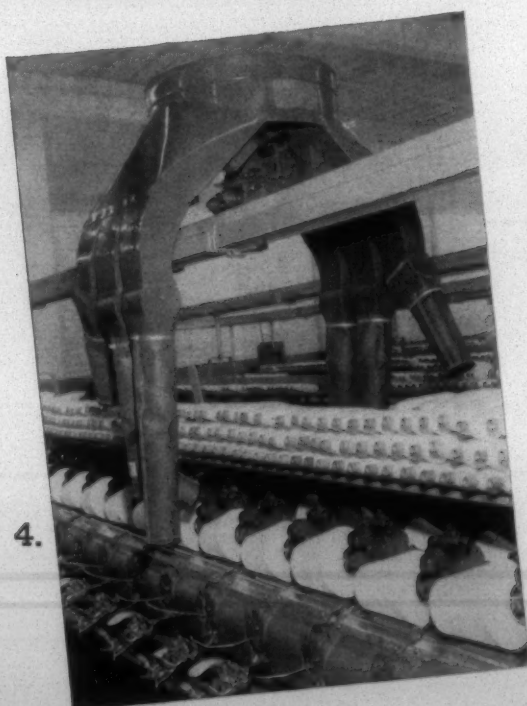
3.

Parks-Cramer®

Since 1926 Parks-Cramer Traveling Cleaners have helped hundreds of textile mills make more and better yarns and fabrics at less expense. Early models were used mostly for cleaning creels of spinning frames.

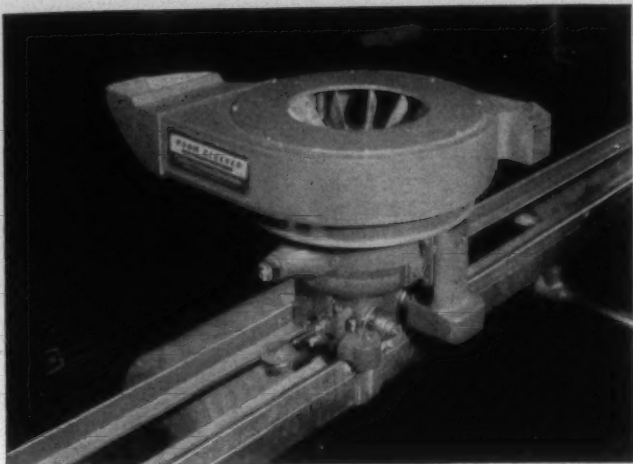
Continuous development and improvement have extended cleaning ability to all areas of the spinning frame and to other machines throughout the yarn and fabric mill.

The idea of cleaning the ceiling, first originated in 1928, has similarly been extended. Now we clean all room surfaces from ceiling to floor—even collect and remove the sweepings automatically!

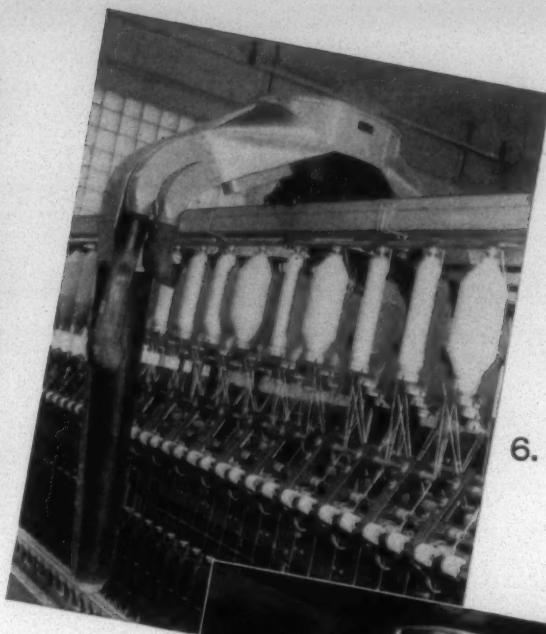


4.

1. **LOOM CLEANER** (Type CTL). Air currents of ample velocity. Directed close to surfaces to be cleaned by fixed and oscillating air outlets. Means for automatic reduction of air over sensitive areas.
2. **ROOM CLEANER** (Type CBR). Hangs below single rail track. Air distributor revolves continuously. Directional control of air currents.
3. **ROVING FRAME CLEANER** (Type CTFV). Includes means for automatically reducing or deflecting air blasts while cleaner passes over a frame being doffed or creeled.
4. **CLEANERS FOR WINDERS, SPOOLERS, WARPERS, TWISTERS**. Similar to frame cleaners, with air distributors and outlets to suit the requirements.



5.



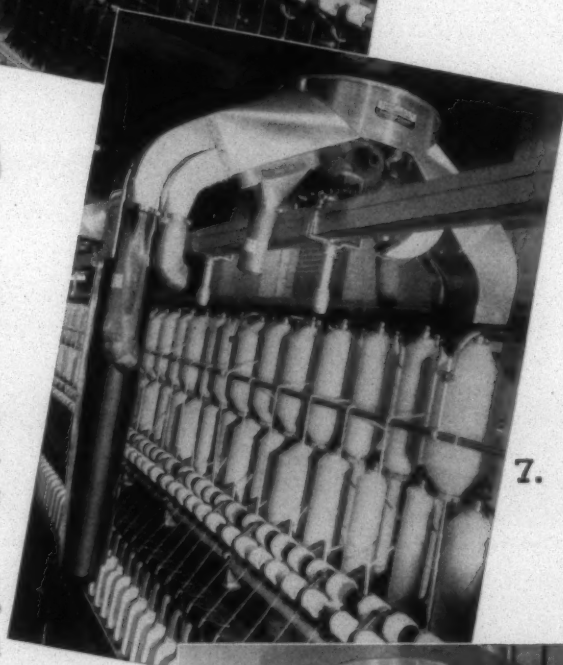
6.

Traveling Cleaners

5. **ROOM CLEANER** (Type CTR). Rides on and above its track. Air distributor revolves continuously. Used alone or coupled to frame cleaner.

6. **SPINNING FRAME CLEANER** (Type CTF). Fifteen & 7. air outlets. Single unit delivers air where needed with proper velocity and volume for each area including underframe.

8. **FLOOR SWEEPER** (Type CTS). Usually coupled to frame cleaner. Sweeps lint along floor to a central location from which it is removed by vacuum.



7.

8.

All these Parks-Cramer cleaners are self-propelled. All air outlets below head height are flexible. Outlets are adjustable for air velocity and direction.

Rugged track construction. Shielded electrical conductor rails.

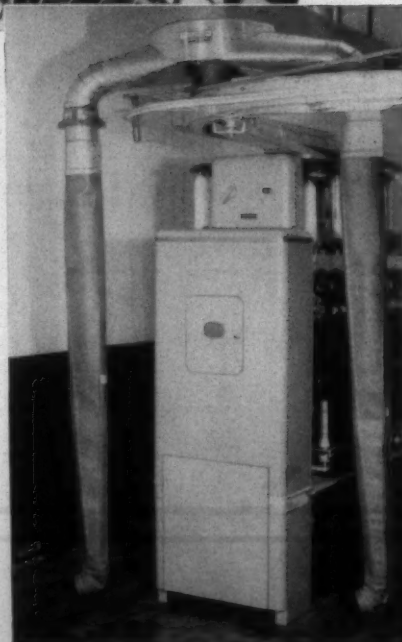
Parks-Cramer traveling cleaners save labor, increase production, improve product and working conditions.

For details and recommendations, consult:

Parks-Cramer Company

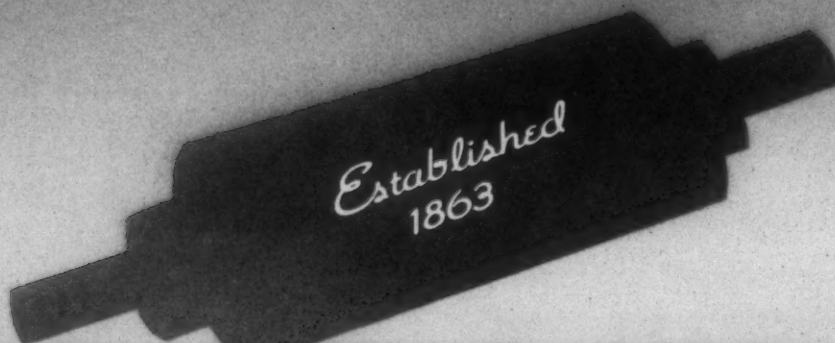
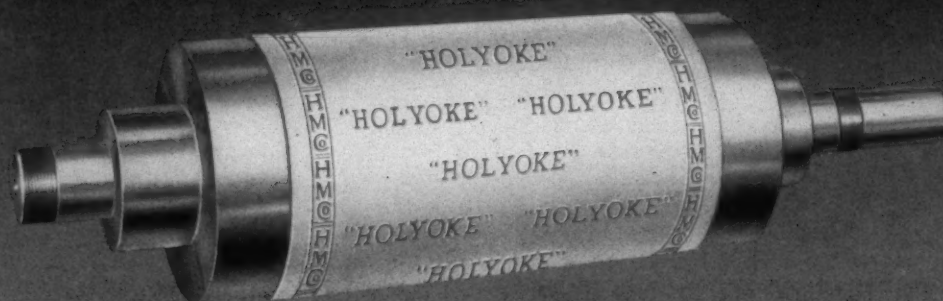
FITCHBURG, MASS. • CHARLOTTE, N.C. • ATLANTA, GA

Established 1901



"HOLYOKE"

EMBOSSING ROLLS



HOLYOKE MACHINE COMPANY

EMBOSSING ROLLS for the PAPER and TEXTILE INDUSTRIES
WATER FILTRATION EQUIPMENT
HOLYOKE, MASSACHUSETTS



Cottons resist wear or wrinkles even more with **RHONITE R-1 *and* RHOPLEX**

Everybody knows that the best things come in pairs! So our wise little owls are now teaming up RHOPLEX acrylic resin with RHONITE R-1 for better-than-ever cottons or cotton blends. As the fabric requires, RHOPLEX acrylic resin can be added to produce

- better wrinkle resistance with equal fiber strength
- or, equal wrinkle resistance with superior fiber strength.

RHONITE and RHOPLEX are trade-marks,
Reg. U.S. Pat. Off. and in principal foreign countries.



Chemicals for Industry

**ROHM & HAAS
COMPANY**

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries;



A New Standard of Production

**THIS
GWALTNEY SPINNING
FRAME INSTALLATION
OF 34,320 SPINDLES
PRODUCED THE RESULTS
SHOWN BELOW —**

MILL PRODUCTION — 160,000 LBS. IN 120 HOURS USING:

7 spinners per shift
5 creelers per shift
and a total of 58 auxiliary operatives on 3 shifts*

ACTUAL MAN HOURS . . .

Spinning Room, for 120 hours — 3760

PRODUCTION PER MAN HOUR — 42.55 LBS.

Warp counts from 8½'s to 30's
Filling 7½'s to 26's
Calculated average count . 21's

Gwaltney Spinning Frames have demonstrated beyond any doubt their ability to produce yarns that are stronger, far more even, and of higher grade than the same count yarn produced from the same stock with conventional spinning — and this improved quality has been produced at considerably lower operating costs and resultant higher profit.

Mills interested in matching these standards should have our sales engineer prepare a "Forecast For Savings" based on a Saco-Lowellizing program.

* Auxiliary operatives include section men, overhaulers, roll pickers, traveler changers, doffers and sweepers.



SACO-LOWELL

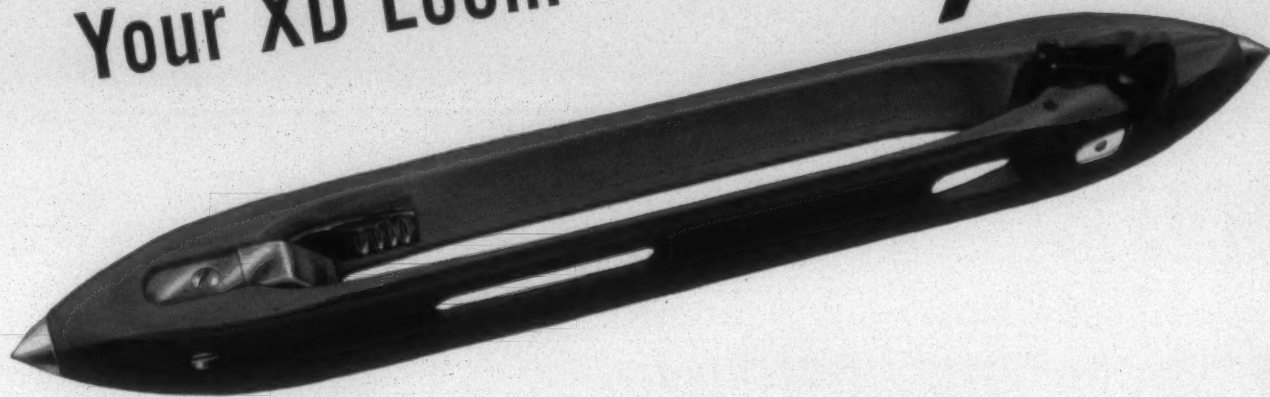
60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N. C.

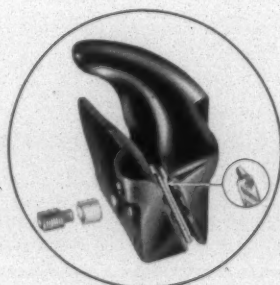
SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

**INCREASE
Your XD Loom**

Profits



With Southern Shuttles



Eye # 900-11 with rear tension and Nyloc.



Eye # 900 P with single tunnel.



Eye # 900 PW two tunnel.

There Is No Better Shuttle Made!

Southern Shuttles are made of the finest quality selected dogwood... Tempered by Southern's exclusive process to prolong their life. XD Shuttles are covered with the best quality fibre or Stehide for increased performance and wearability... bonded with high frequency process to give greatest strength.

Magnum type tips with reverse taper insure positive holding... produced from toughest alloy steel with points induction hardened to retain original shape.

Grips are produced in our plant... under rigid quality control standards to eliminate breakage and wear.

Tension eyes are engineered for fast and positive threading... Southern offers advantage of interchangeable plain eyes both single and double tunnel for spun and novelty yarns.

Milled groove tension pads as illustrated insure first pick tension... positive tension adjustment maintained by exclusive "Nyloc" feature. Hard chrome plated pins and positive locking nuts... used throughout assuring trouble free service.

Uniformity of every shuttle guaranteed... by quality control methods and numerous inspection procedures. Each employee trained to be "Quality Conscious".

Long established warranty... against defects in material and workmanship proves their superiority.

Stehedco
STEEL HEDDLE MFG. CO.
PHILA. 32, PA.
SOUTHERN SHUTTLE DIV.
GREENVILLE, S. C.
Southern

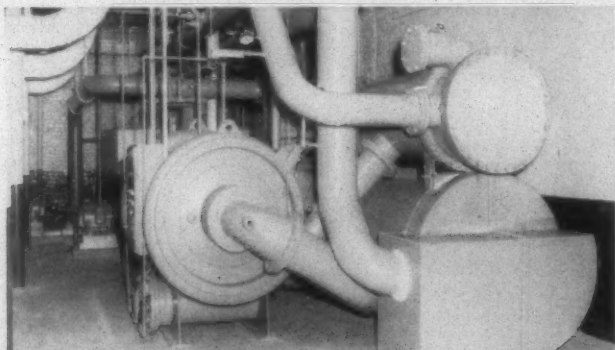


World's largest manufacturer of all type Shuttles • Comparison made them famous

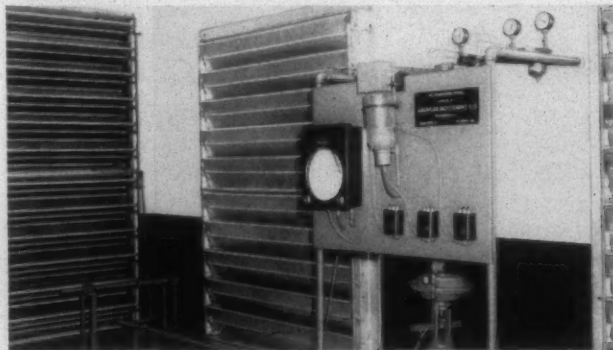
Other Plants and Offices: Granby, Quebec, Canada — Lawrence, Mass., Providence, R.I.
Greensboro, N.C. — Atlanta, Ga. — Textile Supply Co., Dallas, Texas
Albert R. Breen, Chicago, Ill.



Card room at Highland Park Mfg. Co., Mill No. 1, Charlotte, N. C. Ductwork and zone control atomizers are part of Amco's central station system, designed by J. E. Sirrine Company for the entire mill.



Refrigeration is supplied by a 350-ton Trane Centravic unit located in the basement.



The Amco control panel alongside the fresh and recirculated air louvers.

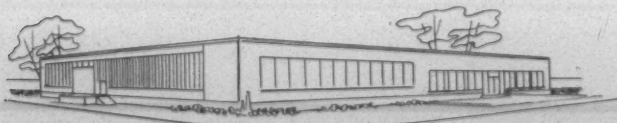
This **ECONOMICAL** split-system by Amco provides thoroughly conditioned air, with maximum operating efficiency

Whether your need is for one room, or an entire mill, Amco offers air conditioning to meet your requirements. Amco designs and installs all types of systems — humidification alone; or in combination with cooling, such as in the ductless evaporating cooling system; unit dry-duct systems; or central station systems.

The central station system Amco recently completed at Highland Park Mill is a good case in point. In order to effect savings, it was felt advisable not to install the excess

air capacity found in conventional design. Instead, Amco installed a "hand tailored" split system using a smaller central station unit augmented by room atomizers, thus reducing both initial cost and operating cost. This system provides complete control with even greater flexibility of operation. Savings have been substantial.

Amco engineers will be glad to work out a solution to any problem you may have. Next time call on Amco for reliable advice. There is absolutely no obligation.



New Cleveland-Rowan Plant of the American Moistening Company. This modern plant is located at Cleveland, N. C., for the fabrication of duct work and sheet metal products.

AMCO

AIR CONDITIONING SYSTEMS since 1888

AMERICAN MOISTENING COMPANY, PROVIDENCE, R. I. • ATLANTA, GA. • BOSTON, MASS. • CAMDEN, N. J. • CLEVELAND, N. C.

TYPE K REBUILDING SERVICE

PAYS OFF

IN BETTER CLEANING RESULTS

IMPROVED PERFORMANCE

If your Type K Bobbin Cleaner has been in use for several years, it may need substantial repairs. On older machines the addition of late, improved, assemblies will greatly increase their efficiency and economy.

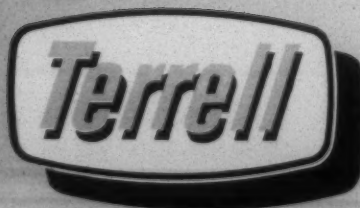
UNINTERRUPTED SERVICE

We acquire machines of various models and bring them up to date. We ship you one of these completely remodeled machines, set up to handle your bobbins, ready to be put into immediate operation in your plant. This rebuilding service has been in use for several years and mill men are highly pleased with its economy and convenience.



**WRITE
FOR
COMPLETE DETAILS
ON THE
MODERN REBUILT
TYPE K**

THE



**MACHINE COMPANY, INCORPORATED
CHARLOTTE, NORTH CAROLINA**

Statistics make headlines... *but* Performance makes Profits!

Statistics for machine production often make news, but actual machine performance plays the decisive part in creating mill profits. The performance of Whitin Superflex Spinning frames and the profits they are producing now in many leading mills are the best test of their true worth. That's why Whitin Superflex Spinning frames are the continuing and growing choice of mills demanding maximum yarn quality and minimum spinning costs — the essential ingredients of profits.



.so look at the profit-producing performance of

Photographs show recent installations of
Whitin Superflex Spinning Frames





ce of Whitin SUPERFLEX* SPINNING

As a specific example of the advanced economies and practical benefits that can be secured with Whitin Superflex Spinning frames, the following mill data is

presented, based on actual operating conditions in the production of high quality print cloth, 80 x 80, 39", 4.00 yds./lb., 31's warp and 41's filling.

| | Warp | Filling | | Warp | Filling |
|------------------------|-----------|-----------|--|-------|---------|
| Yarn No. | 31's | 41's | Front Roll Speed | 138 | 140 |
| Gauge | 3 1/2" | 3" | % Efficiency | 95 | 95 |
| Ring | 2" | 1 1/8" | Lbs./Spdle./Hr. | .0265 | .0203 |
| Traverse | 11" | 7" | Lbs./Spdle./120 Hrs. | 3.180 | 2.436 |
| Wt./Yn./Bobbin | .345 lbs. | .119 lbs. | Spdles./Operator | 3900 | 3864 |
| Spindle R.P.M. | 10,300 | 11,000 | Labor cost per lb. including all direct and indirect help in Spinning Room \$0.03322 | | |
| Traveler Speed, F.P.M. | 5376 | 4140 | | | |
| Twist Multiplier | 4.25 | 3.90 | | | |
| T.P.I. | 23.7 | 25.0 | | | |

For complete information ask your Whitin representative or write direct to us.



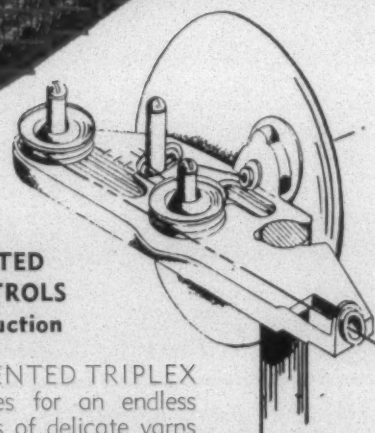
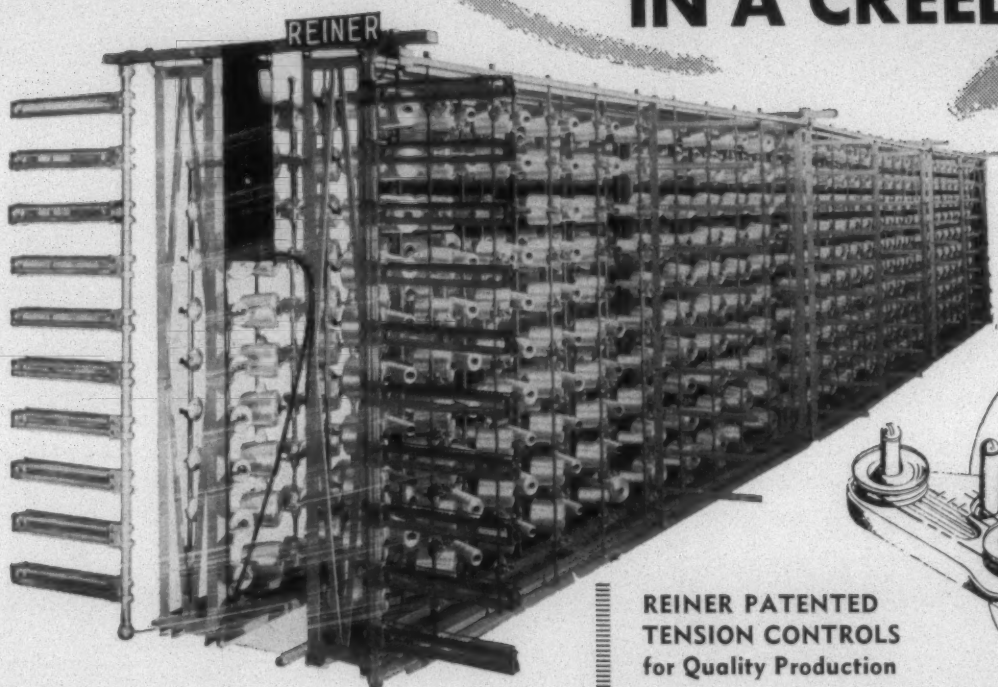
Whitin

MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

REINER Offers Everything You Want IN A CREEL



REINER CREELS—

the most modern in use—have many features. Time-tested and proved in mill operation, they provide for savings in labor—producing better warps at higher speeds. They are readily adaptable to pirns of all sizes and all types of cones or cores.

Reiner magazine or single type creels give unmatched performance for any space or functional requirement. Truck creels for quick doffing are also available

Reiner offers a full line of warpers and beamers.

All Reiner equipment is readily adaptable for use with units of other make.

From Cone to Knitted Fabric—From Creels to Warpers—From Knitting Machines to Tenter Frames—You Can Depend On Reiners For Superb Workmanship, Low-Cost, Profitable, Efficient, Trouble-Free Production!

REINER PATENTED TENSION CONTROLS for Quality Production

REINER'S PATENTED TRIPLEX TENSION provides for an endless variety of settings of delicate yarns at top speeds. A metal guard protects against ballooning yarn—eliminates breaking or nicking. Four different weights of tension washers meet all possible requirements. All posts are movable and the slots calibrated for easy setting. Alsimag or porcelain eyelets—tension posts available in Alsimag or satin-finish hardened chrome.

Other tension arrangements with single or double posts—tensions with loom type stop motions—tensions for crepe or special yarns—mercury—loom type—mechanical stop motions for any yarn or special requirements.

Write for complete details.

Also ask about the most recent addition to the complete Reiner line — the Reiner Warp Oiling Device.



**ROBERT
REINER
INCORPORATED**

10 MINUTES FROM TIMES SQUARE

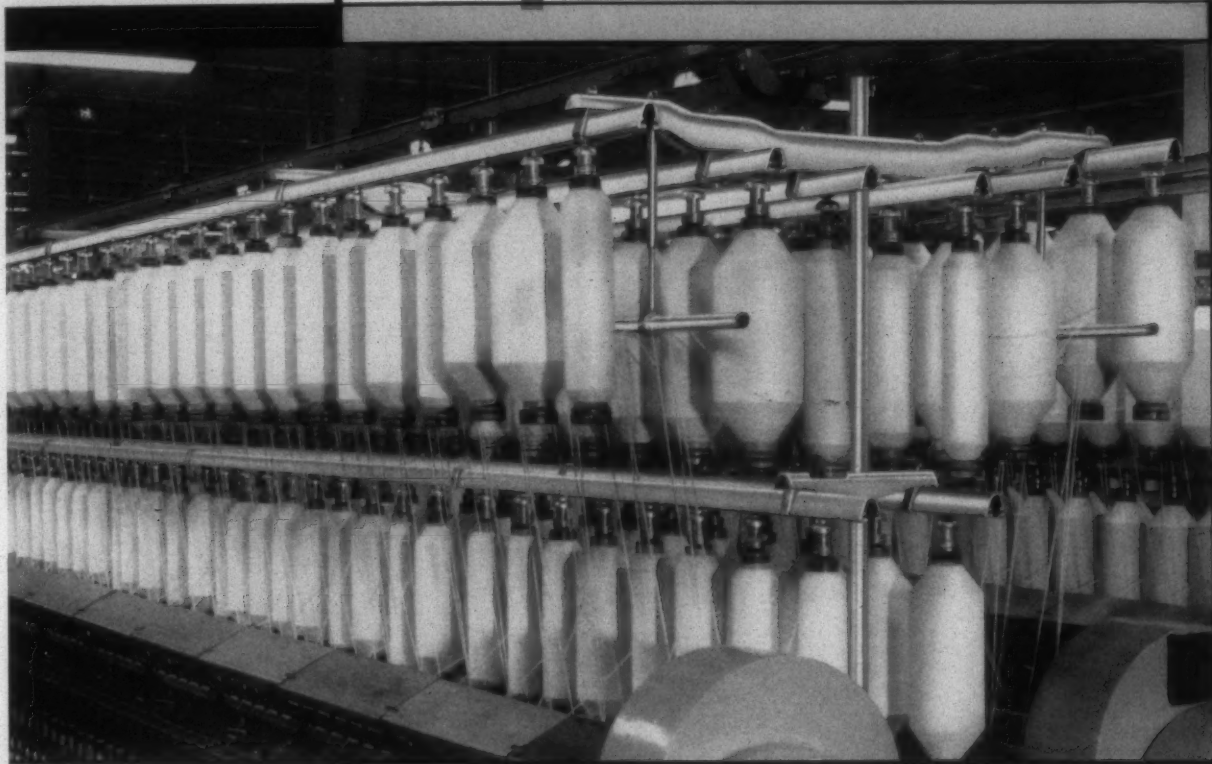
Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue ... TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

FOUNDED IN 1903

550-564 GREGORY AVENUE, WEEHAWKEN, NEW JERSEY

INVESTMENT
IN EARNING
POWER...

SpinSaCreel



Engineered and manufactured to increase profits, production, and efficiency of your spinning frames.

The SpinSaCreel is designed with an open top to allow the overhead cleaner to distribute air thoroughly above and around the creel and roving packages to keep it free of lint.

The cross arms are constructed of cast aluminum for maximum strength, and the bobbin holder tracks are extruded aluminum shaped to prevent lint accumulation. The bobbin holders can be moved to accommodate various gauges and packages, single and double roving.

The SpinSaCreel is designed to compliment the SpinSaVac, a system which removes and collects broken ends, fly or sliver. This combination of cleaning and material recovery is truly an "investment in earning power"!

Leaders in the Field of Textile Material Recovery



SpinSaVac Corporation

P. O. Box 533

Telephone FRanklin 7-4741

CHARLOTTE 1, NORTH CAROLINA

The BETTER Bobbin for your Gwaltney Frames

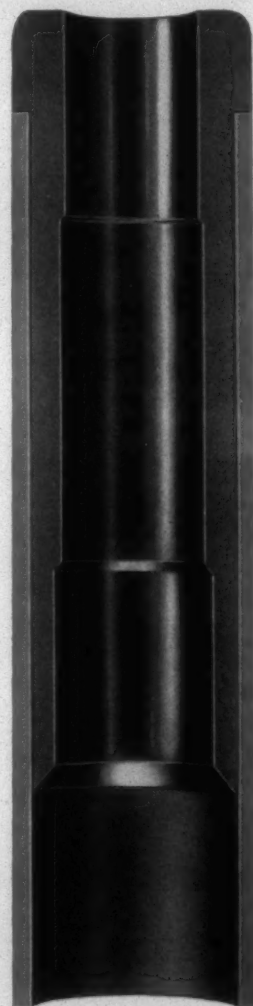
A.P.T. SGI BOBBIN

*Actual-size cutaway
of the platiwelded
tip and seat section*

Accepted from the first as the leader for Gwaltney Spinning, this A.P.T. bobbin has undergone another year of research and improvement in our new plant. Now in production is the rugged design detailed at the right, which gives positively the finest seat for Gwaltney spindles, assuring:

- precision alignment.
- permanent concentricity.
- super-easy doffing.

This rugged all-plastic tip and seat section is thermosetting plastic of tremendous toughness, formed together with the synthetic tube by "plasti-weld" method into a unit of permanent precision. The homogeneous composition of the tube, plus impregnation and baking, makes it free from warping, splitting or chipping; heat and friction resistant; unaffected by moisture in any form whether humid atmosphere or steaming treatment.



*Solid
plastic tip
withstands
hardest
mill usage*

*Pressure-
molded
seat,
insuring
permanent
precision.*

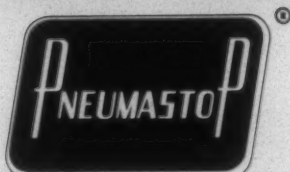
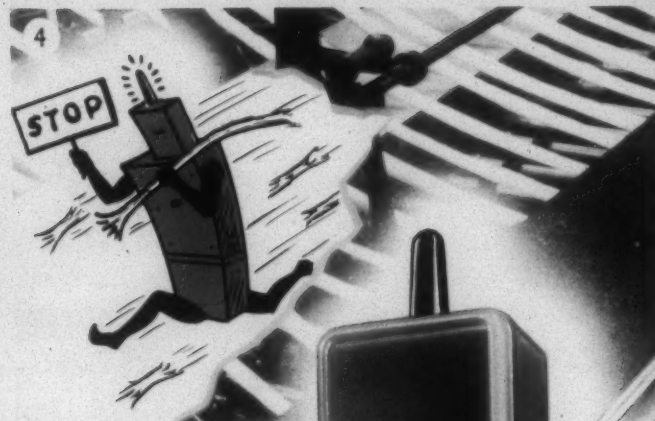
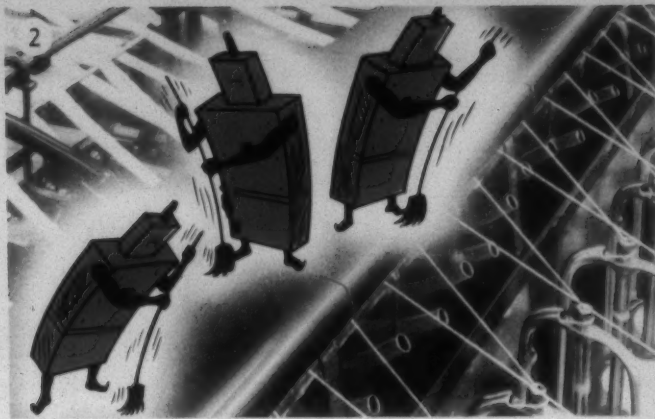
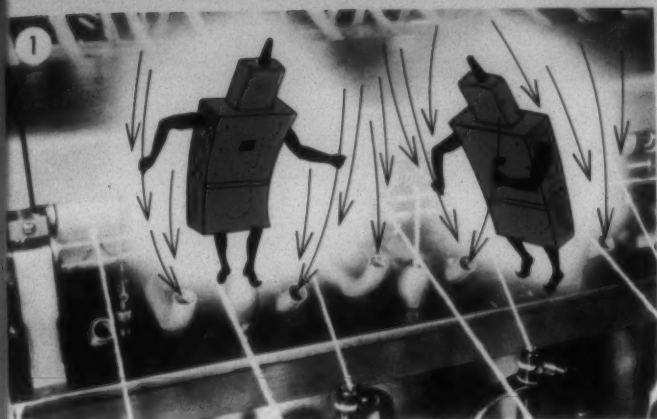
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HUGH WILLIAMS & CO., TORONTO, CANADA

NEARLY 60 YEARS OF RESPONSIBILITY FOR EFFICIENT AND ECONOMICAL YARN CARRIER SERVICE



ON GUARD!

1. HUMIDITY—WHERE IT'S NEEDED

Pneumastop literally pulls the humidified air down into the drafting area where it is *really* needed. This means fewer ends down, frame stops, and lap ups. Naturally quality is vastly improved.

2. CLEANLINESS—A MUST FOR THE MODERN MILL

Pneumastop's powerful suction at work in the fly generating area, is constantly picking up loose fly and trash. The result is cleaner frames. For example, flyer picking can be cut in half.

3. PNEUMASTOP—PRIVATE EYE

Flug (slubs, gouts, and foreign matter) is removed from every inch of the strand of roving. There is less fly, so the roving goes to the spinning room cleaner, stronger, more even. Actual tests show that because of Pneumastop, spinning room ends down can be reduced as much as 30%!

4. ON GUARD—FOR BROKEN ENDS

When an end breaks, Pneumastop *immediately* grabs the end keeping it from doubling or knocking down adjacent ends. The frame is instantly stopped (of course, there is a time delay at the traverse change) and at no time is the broken strand ever out of control.

Hard working, "low wage" Pneumastop is one of the most practical and profitable investments you can make for your mill. Write for more details . . .

PNEUMAFIL CORPORATION

CHARLOTTE 8, NORTH CAROLINA

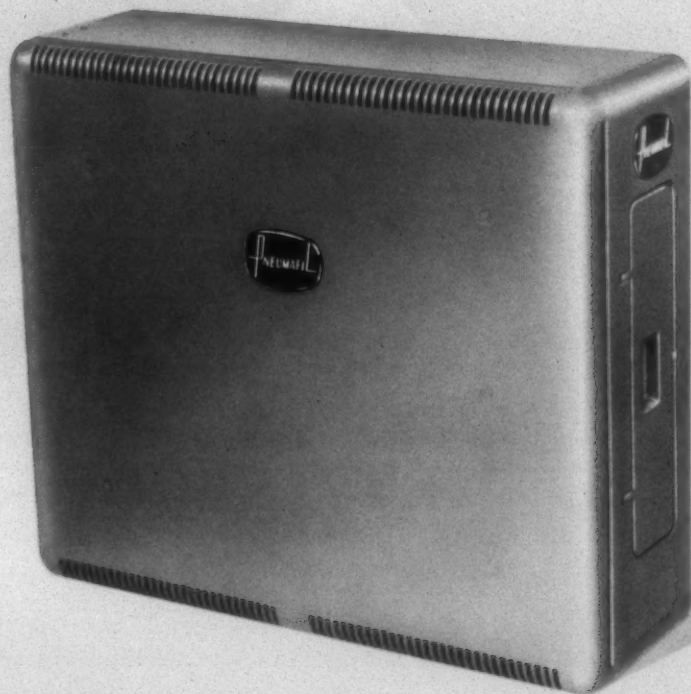
Atlanta, Georgia

Needham Heights, Mass.

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**175,000 spindles in 40 mills
are being equipped with
Pneumafil® each month!**



The all new Pneumafil system converts spinning frames to sparkling, cleaner than ever frames with higher than ever spinning efficiency—and with better than ever yarn quality too!

This new Pneumafil equipment was developed after 10 years of working with mills on their spinning problems. New improvements, now in the making, will naturally be incorporated in or adaptable to this new flexible Pneumafil system, giving you the very best long and short range investment of this type equipment available—ANYWHERE!

Remember—there is a difference.



PNEUMAFIL CORPORATION

CHARLOTTE 8, NORTH CAROLINA

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Gossett's NEW BIG drawing coiler gives

**TWICE the continuous running time
... HALF the creeling time!**



Photo shows a recent installation in a prominent mill of Gossett's NEW BIG drawing coilers . . . size 15" x 42"

From Gossett Machine Works, pioneers in the big coiler conversion technique, comes Gossett's NEW BIG Drawing Coiler!

Here's THE big coiler which is especially constructed for greater all-round efficiency at high speeds!

Smooth, low-noise operation and longer wear are features built-in by Gossett's master technicians.

Get twice the continuous running time . . . cut

your creeling time in half . . . install Gossett's NEW BIG drawing coilers on your present drawing frames NOW!

We convert 10" and 12" drawing coilers to 14" through 15" in diameter and 36" to 42" in height.

For full information and prices, write

B. W. GOSSETT
President

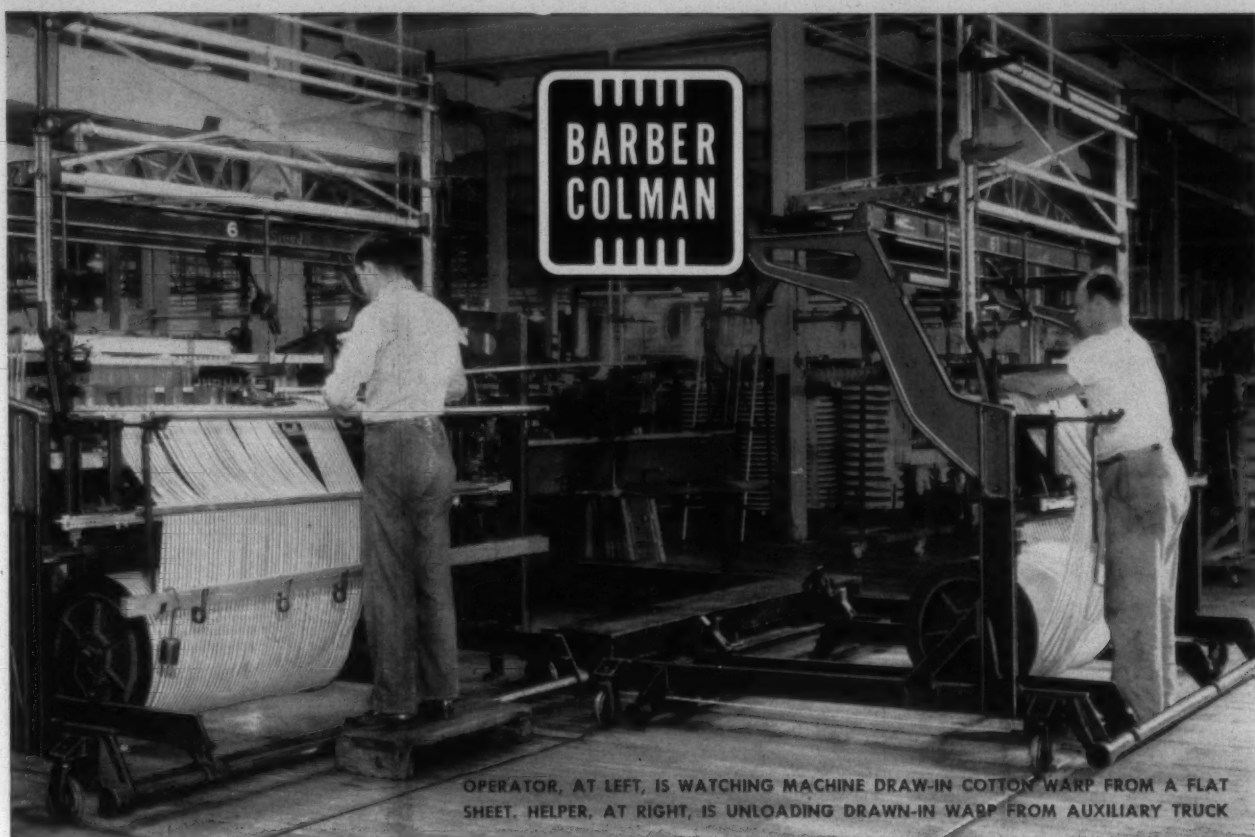
E. C. MASON
Sales Manager

D. W. SMITH
N. C.-Va. Representative

GOSSETT

Machine Works, Inc.

GASTONIA, NORTH CAROLINA



OPERATOR, AT LEFT, IS WATCHING MACHINE DRAW-IN COTTON WARP FROM A FLAT SHEET. HELPER, AT RIGHT, IS UNLOADING DRAWN-IN WARP FROM AUXILIARY TRUCK

A MACHINE WITH SHARP EYES, QUICK HANDS, AND AN AUTOMATIC "BRAIN"...



If you want to see the complete list of mills now using these machines, and the types of products they weave, write for a copy of the "Users List" shown above. Ask for Bulletin F 6354. It is available also in French and German translations.

The operation of drawing-in new warp through drop wires, heddles, and reed is an ever-present problem in all types of weaving. In the old days it was done entirely by hand, and still is in some places — a tedious and tiresome task. The advent of the Barber-Colman Warp Drawing Machines has changed all that, so that you now have a wide range of equipment to suit all needs. Barber-Colman Warp Drawing Machines draw-in the drop wires, the heddles, and the reed *all in one operation*. A needle, making as many as 220 strokes a minute, picks up each end in sequence and draws it through the proper apertures. Each opening is correctly presented at each stroke of the needle, this selection being

accomplished automatically from a metal pattern strip punched in accordance with the designer's draft. Thus the human eyes, hands, and brain have been supplanted by a mechanism that is sharper of vision, quicker of movement, and practically infallible. Results, in mills across the country, and in lands across the sea, show a consistent record of improvements and economies of many kinds. Application is *not* limited to only the larger mills; it is determined actually by the work to be done. *Barber-Colman representatives are qualified by long experience to make a detailed study of your requirements — and to make a proper recommendation if one is justified. Ask your Barber-Colman representative for details.*

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

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lustre that lives

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GLITTERING
FAIRTEX® YARNS
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FAIRTEX Yarns with Metallized Mylar* never lose their glittering glamour . . .
and outlast even the fabric itself!

Specifically developed for use in automotive fabrics, upholstery and drapery materials, mattress ticking, and hosiery, FAIRTEX Yarns with Metallized Mylar* are highly heat resistant, can be safely washed, drycleaned or scoured and do not tarnish.

There's no flaking or breaking of metal when you weave or knit with FAIRTEX.

For economy and efficiency, start using FAIRTEX Yarns with Metallized Mylar* now with cotton, wool, silk, linen or synthetics. You get greater yield per pound with smoother, more pliable and more uniform FAIRTEX Yarns.

... lustre that lives ... for the life of the fabric!

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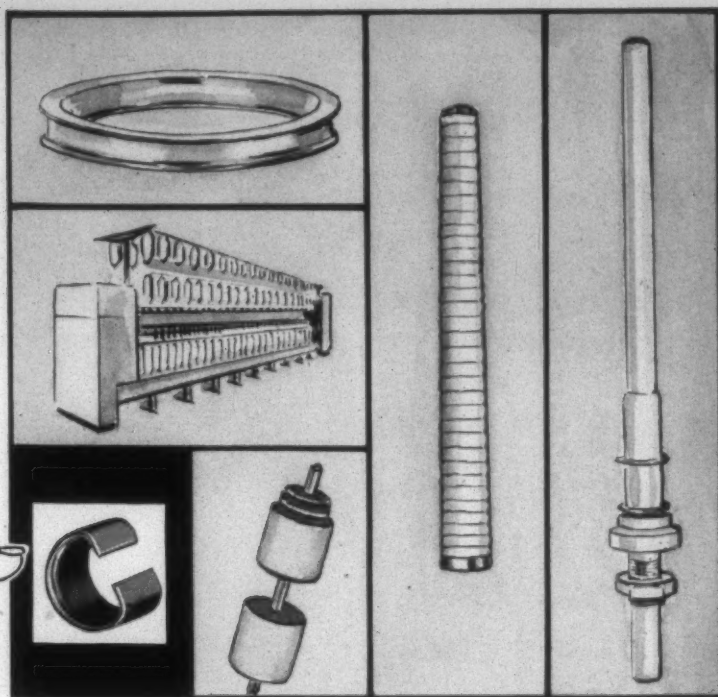
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**To solve
a spinning
problem**

**Start with the
TRAVELER**



It may be the only change needed



A traveler change is the easiest to make —
and you may solve your problem right there.

Whether your problem is bad running work...
or a venture into new fibres or blends, or
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a call to your U. S. Representative will
- bring you intelligent suggestions that may
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He also brings you the finest travelers
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A Style and Size for Every Yarn and Fibre

Packaged to Arrive



and Keep Perfectly

For **smoother** knitting and **fewer** seconds use **GULFTEX**, the non-staining needle oil

Gulftex oil keeps needles clean and smooth, resists gumming and minimizes the build-up of deposits on needles. Result: Smoothest knitting and fewer seconds!

Gulftex also has superior non-staining characteristics that make it a valuable lubricant for any application where the staining of fabrics is a problem. It is easily applied with spray, brush or plastic squeeze bottle.

Scores of hosiery mills report excellent results with this outstanding needle oil. Let us prove that it can do a better job in your mill!

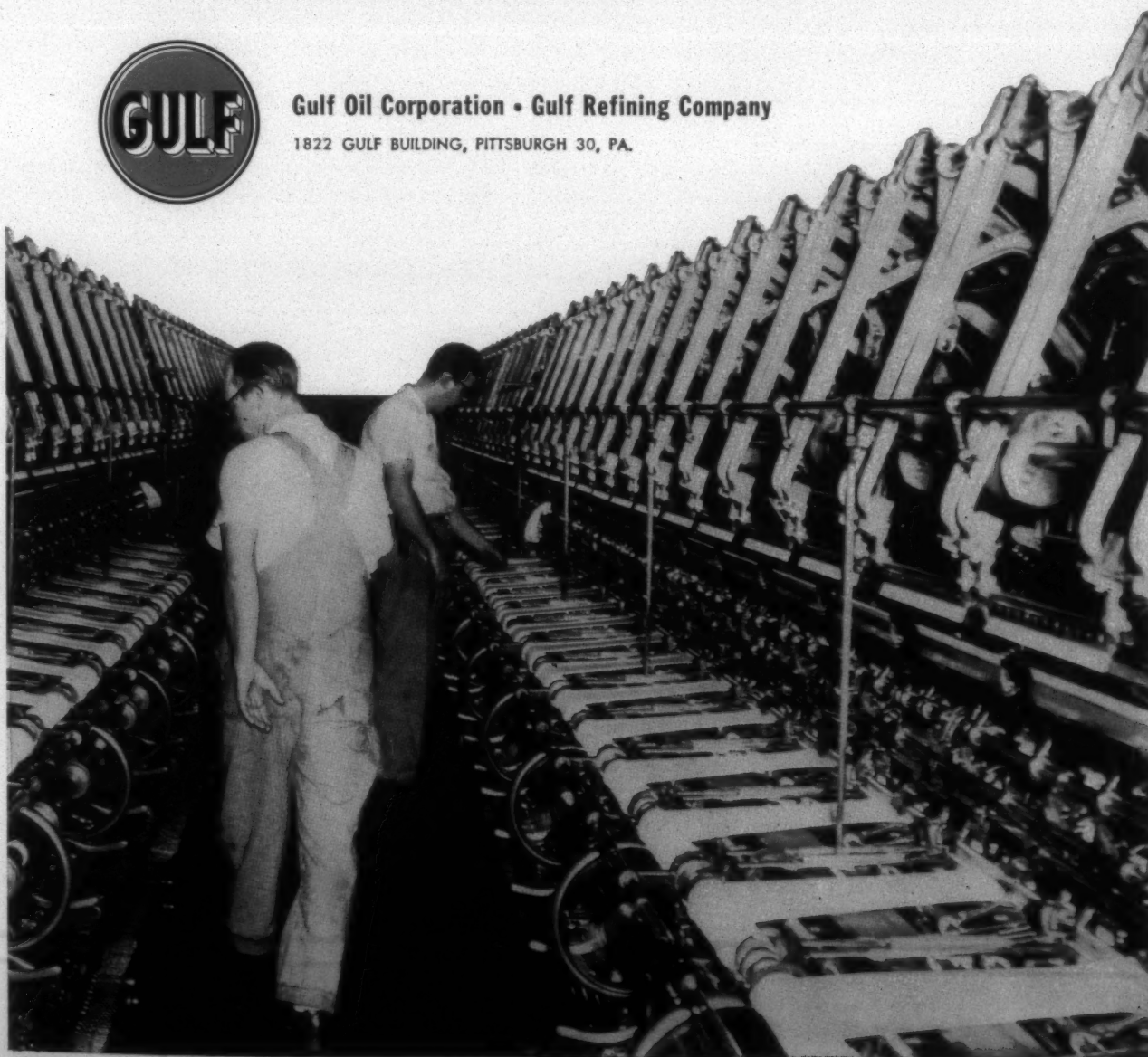
Consult the yellow pages of your telephone directory to contact your nearest Gulf office, and have a Gulf Sales Engineer call.

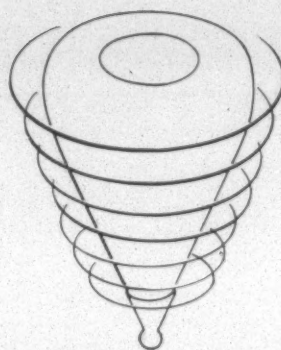
THE FINEST PETROLEUM PRODUCTS FOR ALL YOUR NEEDS



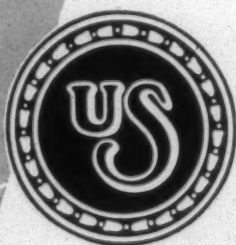
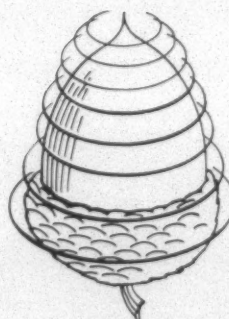
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1822 GULF BUILDING, PITTSBURGH 30, PA.





TOP DRIVE or ACORN DRIVE?



U S BOBBIN

makes the BEST of both!

Personnel of U S Bobbin & Shuttle Co. have been very closely associated with the Top Drive principle in the bobbin art since its first introduction to American mills. In the manufacturing of these quills and warp bobbins we have developed a "know how" of which we are justly proud . . . and we offer the benefits of this valuable accumulated experience to any interested mill.

A competent U S Field Engineer will contact you promptly, on request.

U S BOBBIN & SHUTTLE CO.

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LAWRENCE, MASS.

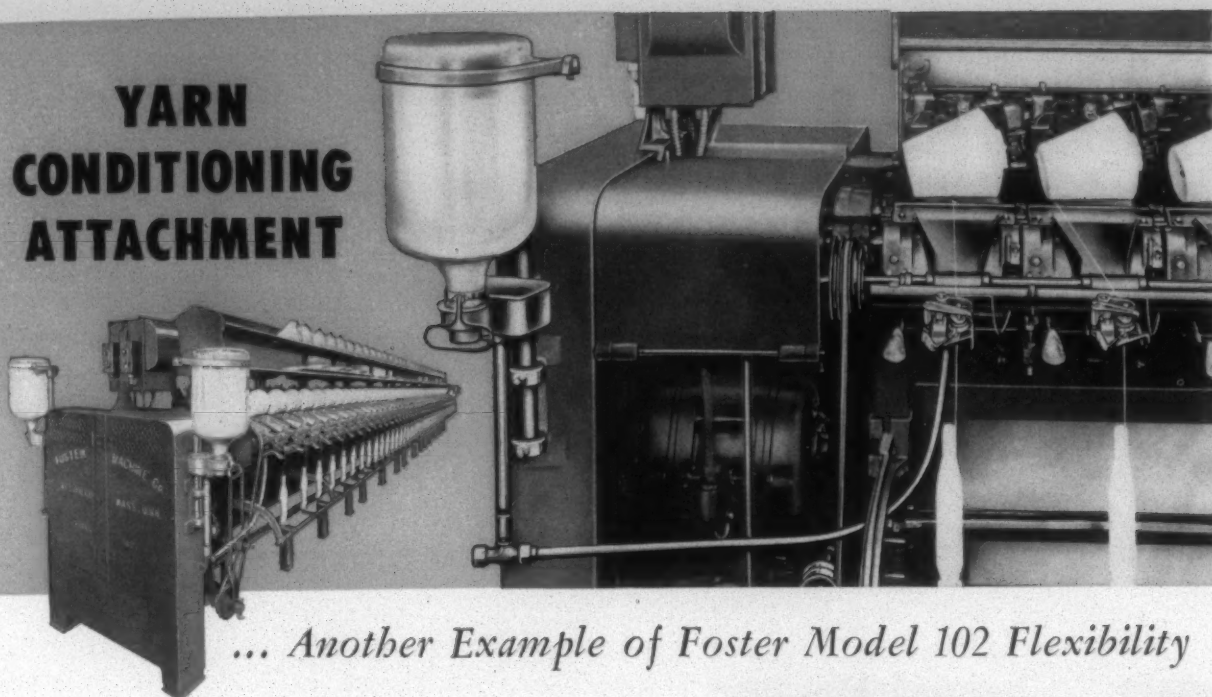
GREENVILLE, S. C.

General Sales Office LAWRENCE, MASS.

Southern Division Headquarters: 428 Birnie St., GREENVILLE, S. C.

For information, contact either Sales Office; or our Technical Field Representatives located in Charlotte, Gastonia, Asheville, Nutley, N. J., North Attleboro, Mass. Supply Houses: Birmingham, Dallas, Los Angeles.

YARN CONDITIONING ATTACHMENT



... Another Example of Foster Model 102 Flexibility

This flexibility feature of the Foster Model 102 Winder is particularly important, because some types of winders can not use yarn conditioning attachments.

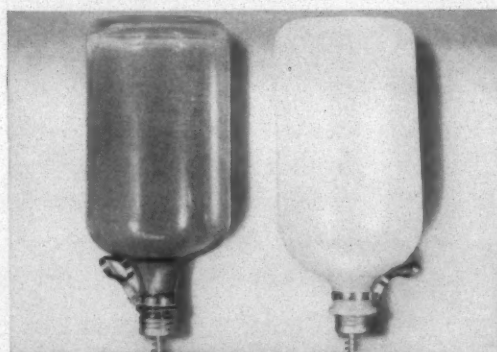
This attachment lubricates and softens yarns with a wax or oil emulsion. It restores normal moisture content and gives the yarn a soft hand, so that it will run well in the knitting machine and reduce needle breakage.

Readily applied to existing machines, or supplied with new machines, it is particularly useful when winding mercerized yarn or package dyed yarn. It can condition any type of yarn at any speed within the capacity of the machine — up to 750 y.p.m. It also permits numerous variations in percentage of moisture pickup.

Other flexibility features of the Foster Model 102 are: —

1. Handles any type or count of staple yarn except the coarsest.
2. Produces any cone taper commonly used and any angle of wind from 9° to 18°, with simple and inexpensive changes.
3. Can be equipped to wind knitting cones, warping cones, parallel tubes, dye packages or short traverse cheeses.
4. Winds dyed yarn, even when damp.
5. Can be built to wind up to 7" traverse.

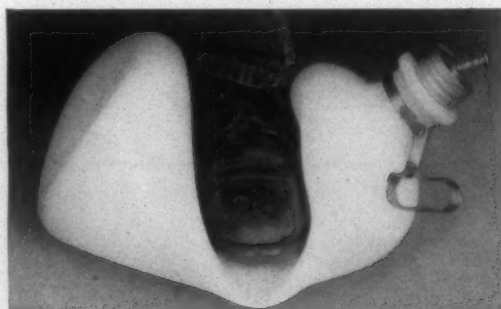
Who knows what you'll be winding a few years from now? Be prepared for the unforeseen insofar as possible. Get all the facts about the Foster Model 102. Send for Bulletin A-95 now.



GLASS

PLASTIC

PLASTIC BOTTLES now available for Foster Yarn Conditioning Attachment. Weigh only 2 lbs. ½ oz. Glass bottle weighs 6 lbs. 15½ oz.



UNBREAKABLE. Does not shatter, if dropped. Lasts indefinitely; eliminates accidents; pays for itself many times over.

FOSTER MACHINE COMPANY

Westfield, Massachusetts, U. S. A.

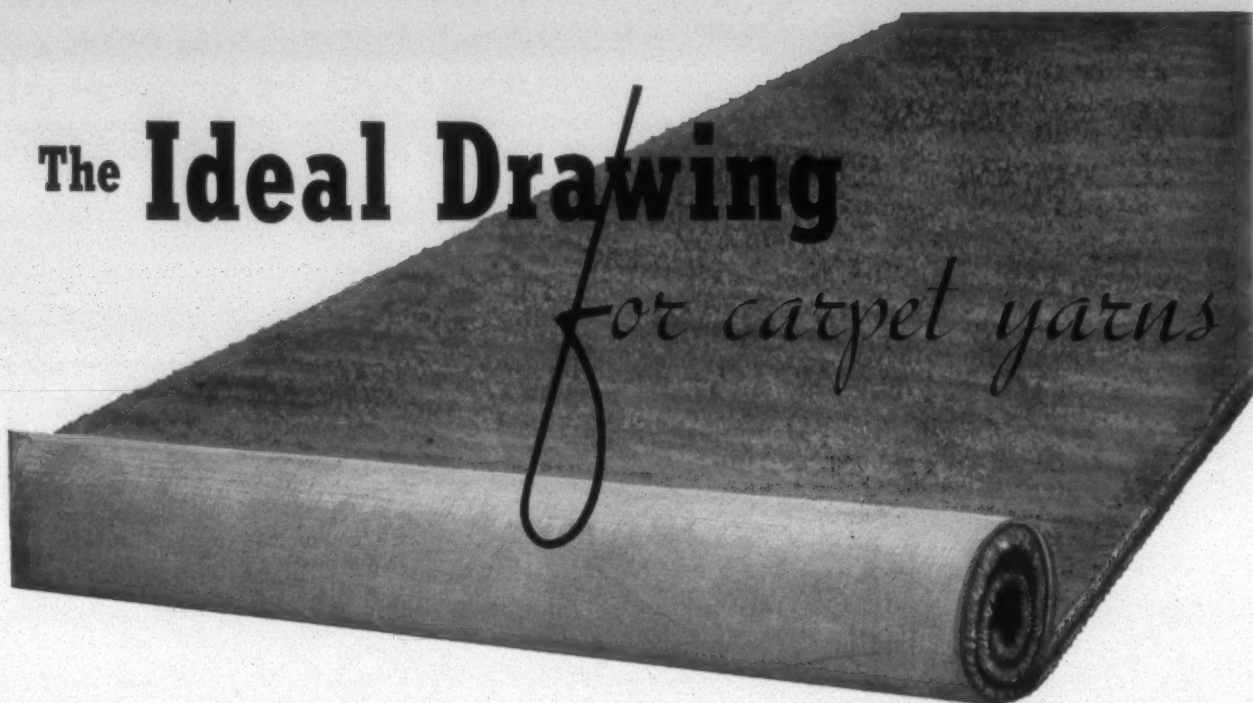
Southern Office — Johnston Bldg., Charlotte, N. C.

A Winder for Every Textile Purpose

Canadian Representative — Ross Whitehead & Co., Ltd., 1475 Mountain St., Montreal, Que. and 35-37 King St., Toronto, Ont.
European Representative — Muschamp Textile Machinery Limited, Keb Lane Bardsley, Oldham, England

The Ideal Drawing

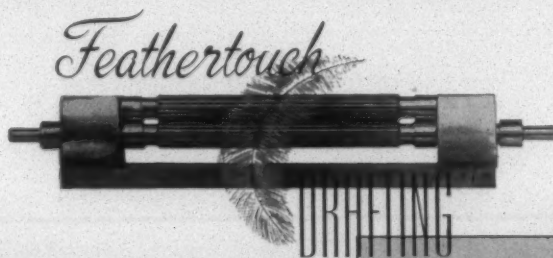
for carpet yarns



IDEAL High Speed Ball Bearing Drawing Rolls* are today producing perfect carpet yarn sliver from 3" staple 15 denier Nylon and other synthetics combined with each other or with cotton or wool fibres. They do this at their usual high speeds without any evidence of shearing or "cockling". Ideal's exclusive construction also eliminates practically all of the static troubles usually encountered when synthetic fibres are run.

And, of course, Ideal Drawing gives you the famous Feathertouch Drafting which never crushes, cuts, or bruises even the finest fibres—and which requires no adjustments and practically no maintenance. If you produce carpet yarns—or any other type yarns—it will pay you to get the facts about Ideal High Speed Ball Bearing Drawing today.

Ideal Drawing can be furnished on complete new Ideal Frames or as replacements on any make drawing frame.



See us at Booths 239 and 240
Southern Textile Exhibition

*Patent Nos. 2,610,363,
2,490,544; 2,412,357.
Other patents pending

Ideal Industries, Inc.
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For the Textile Industry's Use

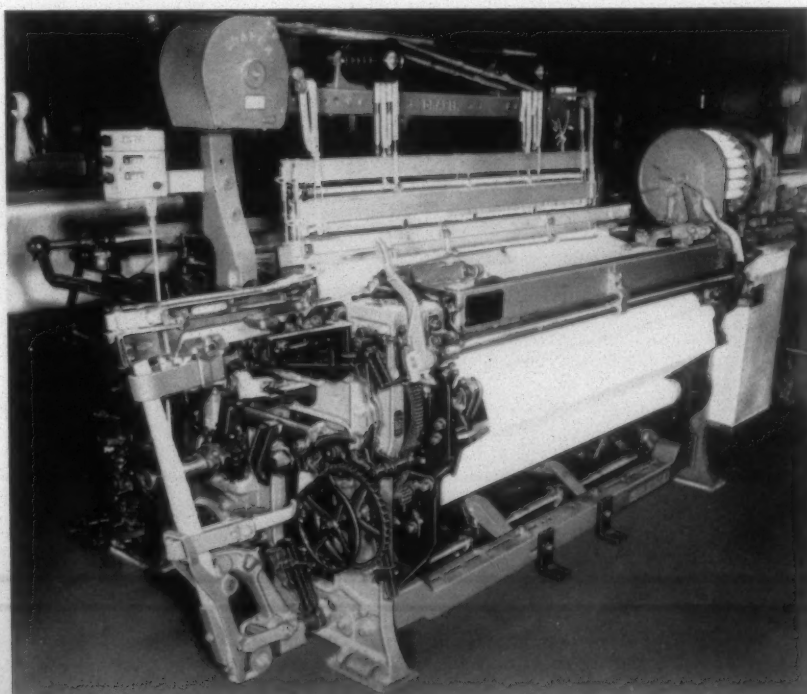
New Draper X-2 Looms

Draper Corp. has announced that the versatility of the Draper Model X-2, high-speed loom has been greatly increased with the adaptation of new loom constructions which make it possible to weave either fine cottons or synthetics equally well on one loom. Adapting this loom to the weaving of spun or filament rayon-type yarns increases weave room flexibility of mills running Model X-2 looms, Draper points out.

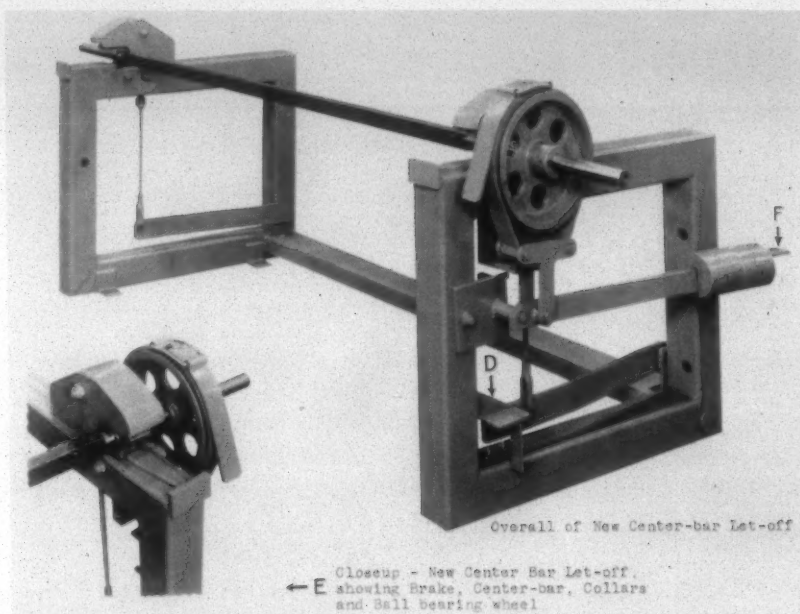
High-roll ratchet take-ups of new design, with double rubber-covered take-up rolls, provide the increased frictional surface needed to hold the cloth weaving synthetics. A separate wind-up driven from chain and sprocket from the lower take-up roll provides for easy doffing. A pressure roll, acting against the lower take-up roll, holds the woven fabric securely and permits doffing the roll of cloth without stopping the loom. This Model X-2 may also be equipped with the Draper clock spring top or a dobby head similar to the XD construction.

Other new constructions also included with this loom are: (1) linkage-type parallel assembly, which is said to give a more uniform controlled picking action, improve over-all loom operation and reduce wear on pick motion and parallel parts; (2) a light weight aluminum pick arm and lug strap connection permitting smooth picking action; (3) a transmitter-type drive for smooth, quick starts and positive braking action.

(Request Item No. F-1)



Improvements in constructions of the X-2 loom provide new versatility (Draper Corp.)



Heavy-duty center bar let-off is bolted to floor or machine (Mount Hope Machinery Co.)

Center Bar Let-Off

A new heavy-duty, extra strong center bar let-off, which can be bolted to the floor or attached to a machine, has been developed by Mount Hope Machinery Co. The new self-contained unit was originally

designed as a part of the Mount Hope continuous roll feed system. In operation, the center bar rotates on phenolic casters which are designed to withstand the shock of the heavy roll hitting them when the roll is put in place. The caster also facilitates maximum free turning with minimum friction wear to the caster and the center bar. Specially-designed guides position and hold the center bar laterally so that the brake drum and the brake bands are aligned perfectly and prevent sidewise motion. This phenolic caster and the guides can be seen in Fig. E.

A self-locking clamp automatically locks and holds the center bar when it is pushed into place. The locking mechanism is protected by a heavy steel case. Release of the center bar is by means of a foot treadle operated from either side of the machine as shown in Fig. D.

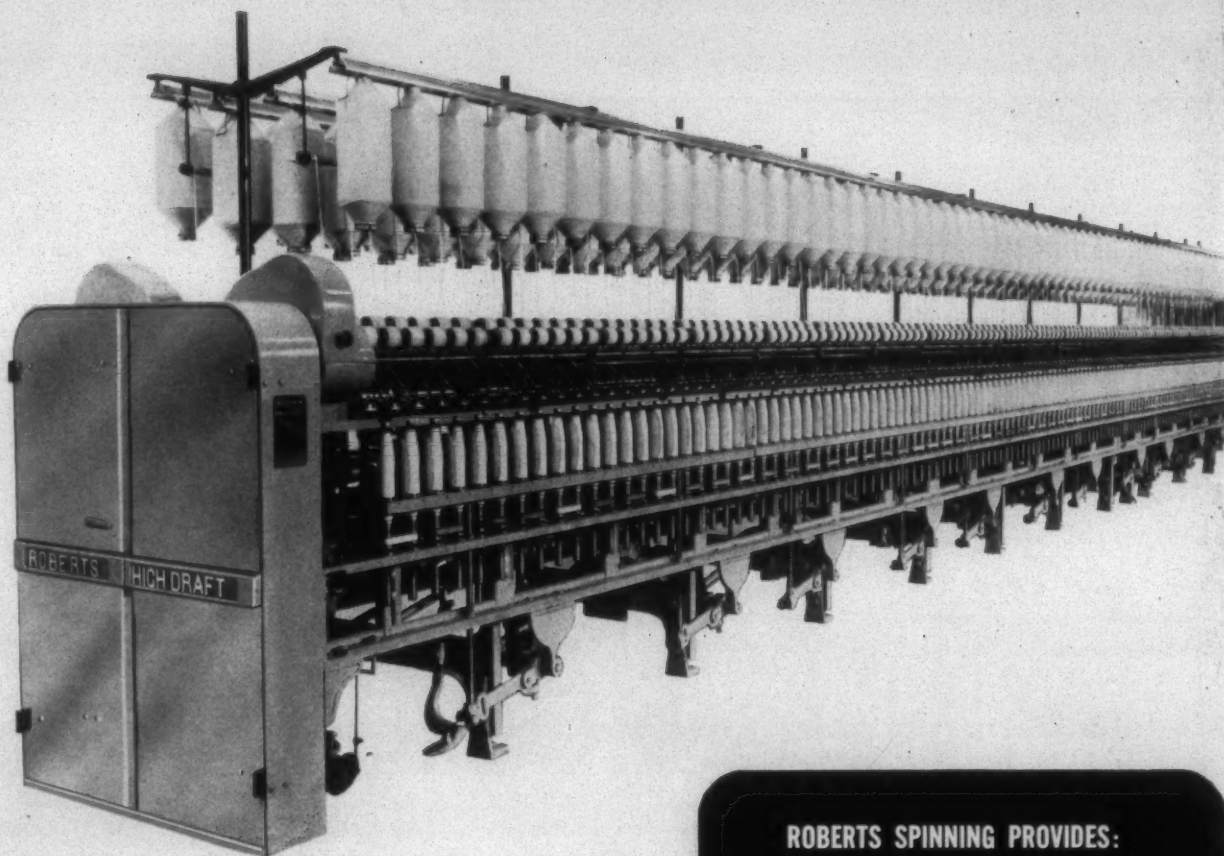
Two-piece, extra heavy-duty brake bands are used with lightweight 8" diameter brake drums to give increased braking efficiency. The bands attach quickly and simply to the brake drum and apply pressure with equal effectiveness whether the roll is rotating clockwise or counterclockwise, the company points out. An electric brake automatically releases tension when the cloth is running and also applies tension automatically as the machine being fed is stopped, as shown in Fig. F.

(Request Item No. F-2)

Hart Stabilizing Resin

Hart Products Corp. announces the development of Hartoset E, a new thermosetting textile resin described as a low-polymeric

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resin of the modified urea type. It is claimed to be a highly efficient stabilizing resin for shrink-proofing and crease-proofing cottons, rayons, acetates and synthetics, and has been successfully mill-tested in the formulation of "minimum-care" and "drip-dry" finishes.

It is said to have unlimited storage life, to be readily soluble, giving pad baths of long stability, and to have excellent compatibility with softeners, thickeners, and vinyl and silicone emulsions. When applied and cured with Hartex Catalysts RH or E4, it is said to give crease-proofing, shrink-proofing and embossing effects durable to repeated laundering. Samples of Hartoset E and technical data sheets on its applications can be obtained by using this journal's reader service request card.

(Request Item No. F-3)

Starch Polymer

Mona Industries Inc. announces the addition of Monatose, a cold water soluble starch polymer to its line of textile chemicals. Mona points out that the addition of Monatose to the present resin formulation results in a reduction in residual shrinkage, improved flat abrasion resistance, enhances the durability of the resin finish to washing or dry cleaning and gives added bulk, weight and fullness to the finished fabric. Samples and technical data sheets are available upon request.

(Request Item No. F-4)

Double Suction Cleaner

Stellite American Corp., sales agent in the U. S. and Canada for Thoma Co. Inc., has announced that Thoma has developed a

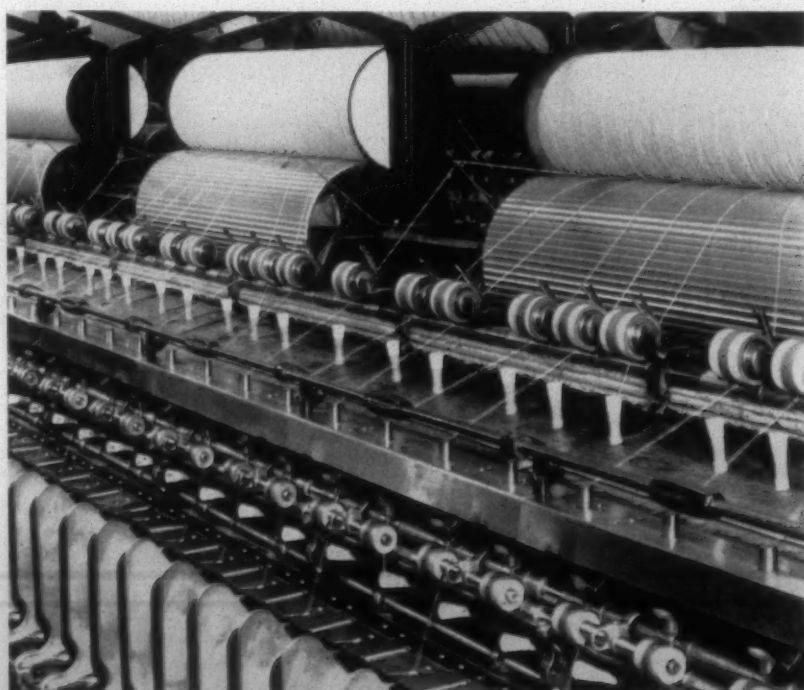
new double suction cleaner for woolen spinning frames. Outstanding feature of this new unit, called the Thomatex double suction cleaner, is that it has two suction points, one underneath the delivery roll and the other beneath the front draft roll, Stellite American points out. The new unit reportedly gives increased work loads by better control and central collection of broken ends; no stripping back of bobbins because of double ends formed above the fly board; and reduction of ends down caused by possible double ends, lap-ups and whip ends. Better quality yarns are delivered through cleaner recovery of broken ends, cleaner working area, reduction in contamination of various blends and elimination of double ends, it is said.

(Request Item No. F-5)

High-Speed Jet Dryer

The James Hunter Machine Co. has introduced a new type jet single-pass tenter dryer, the Uniflow, for spun synthetics, blends, woolen and worsted fabrics. According to the company it delivers a substantially higher rate of production per linear foot of floor space than has heretofore been possible. The air system incorporated into the final machine reportedly accomplishes the following: (1) highest possible production per linear foot of floor space; (2) a complete uniformity of airflow to insure even drying from side to side; complete elimination of color migration either across the face or from back to face; and elimination of damp selvages at top speed; (3) accessibility; (4) ease of maintenance and cleaning; (5) complete automatic control; and (6) elimination of danger of dirt or grease spots.

The Hunter Uniflow utilizes high velocity air impinging on the cloth from the closest



Thoma double suction cleaner for woolen spinning frames (Stellite American Corp.)

possible proximity. Regular production clearly demonstrates that the cloth is dried with absolute uniformity across the face, and most important in piece dyed goods, the drying from the face to the back of the cloth is absolutely even, Hunter points out. Furthermore, no additional control attachment is necessary to maintain the same uniformity of dryness in the selvages. They dry at the same rate as the center and rest of the fabric.

The entire machine is only 7' high. The overfeed, Askania guide, folder drive, machine drive and width-regulating mechanism are all engineered into the dryer itself. All chain and timing belt drives are protected and enclosed in an extremely small, although readily accessible, space. The motors are at floor level, easily reached without resorting to ladders or penthouses. A built-in spray oiling system has been installed at the feed end of the Uniflow, which runs continuously when the dryer is in operation and keeps the chain perfectly lubricated. All bearings on the entire machine are outside the heat and easily reached, which decreases the problem of lubrication, it is pointed out.

The entire assembly of the fan and heater chamber is such that a man can walk in from both sides simply by opening a door, and can work on or clean any part of the machine without taking off panels, the company states. Dryer efficiency will remain high as long as it can be kept clean, whereas



LANDIS BONDING MACHINE for use with Lan-Nyl-Bond nylon, as described in the April issue of this journal, is pictured here. Manufactured by R. H. Bouligny Co. exclusively for Oliver D. Landis Inc., the unit features safety for the operator, controlled heat and thorough bonding of tape splices. It operates on 110-120 volts, a.c. single-phase, with electrical input of 400 watts. A pilot light indicates that the unit is using current, and goes out when temperature is up to thermostat setting. A manually-set timer rings a bell at the end of each bonding cycle. Platens are coated with Teflon to prevent sticking.

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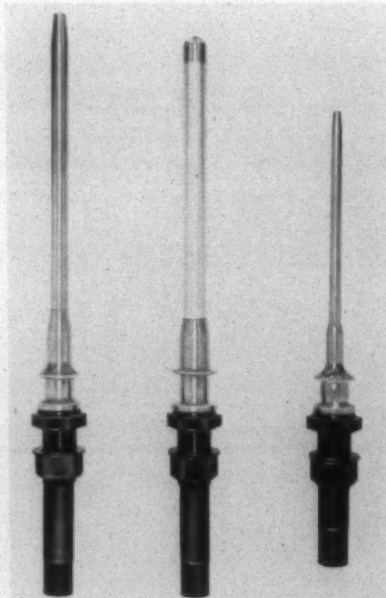
previous dryers have been difficult to clean, particularly in the heater sections.

In keeping with the general pattern of compactness and improved accessibility, all controls are mounted in 2 cubicle-type panels at the front of the dryer, so that the operator can attend the Uniflow with a minimum of effort. A new automatic drive is used, called the Adjusto-Speed. It consists of a regular induction motor which drives a magnetic clutch. This clutch has 2 slip rings which receive a small amount of direct current from a rectifier (which is provided with the machine). As the direct current is increased on this clutch, it grabs more than when the current is less, and thus runs the dryer at any speed at which the control is set.

Another control feature is dynamic braking. Even at top speed, the dryer will stop within 18" after the push button is depressed, the company points out. The same new control feature allows automatic acceleration. Once it is stopped and started up again, it will automatically come back to its present speed.

A new type pneumatic overfeed has been designed with pressure applied on each nip roll, which can be separately adjusted from side to side. (Automatic cloth guidance is provided by an Askania double jet-type unit regulator.) (Request Item No. F-6)

Anti-Friction Spindles



Three new anti-friction spindles, for filling quills, wood warp bobbins and paper tubes (Roberts Co.)

Roberts Co. has announced that it is now producing the first anti-friction spindles to be manufactured in the South. Development of this project has been going on for some time and pilot production runs began the first of the year. Capacity has been established for 20,000 per month, and orders for over 125,000 spindles have been received, it is reported.

Three types are being manufactured—for

filling quills, wood warp bobbins and paper tubes. The use of precision ball bearings in an all-steel base permits higher spindle speeds and larger packages than other types of anti-friction spindles, the company points out, and plumbing is quicker and more accurate. Almost complete elimination of oiling is said to be made possible since only a maximum of 2 drops of oil per bearing every 3 to 5 years is required. The Roberts design permits smaller whorl diameters which affords considerable reduction in cylinder speeds. Horsepower consumption is reportedly reduced and the life of cylinders, cylinder bearings, tape tension pulleys and tape is extended.

The company reports that extremely tight inspection controls have been established starting with metallurgical control of the raw materials in the company's fully equipped chemical testing laboratory. Modern, automatic production operations have been established with full 100% inspection of every piece used in assembly.

Roberts imported 100,000 spindles from Switzerland and Germany last year, but many obstacles encountered in having sources of supply so far removed from the points of use provided the impetus to hasten the company's manufacture of its own spindle, it is pointed out. Also, the reluctance of many mills to use foreign-made machinery items added to the difficulties in importing. (Request Item No. F-7)

American Aniline Dyestuffs

American Aniline Products Inc. announces the release of a new line of Disperscon vat powders for dyeing in a highly-concentrated form. The new line, said to have excellent dispersion, rapid-wetting and non-dusting qualities, is available in the following colors: Blue BCL, Red Brown, Orange RRT, Navy Blue BN, Olive Green B, Flavone GC, Dark Blue BO, Olive R and Pink FF. The manufacturer points out that all the desirable properties of vat dye pastes have been maintained in the new line, in addition to the higher concentration of color. The new products are said to be eminently suited for all of the application techniques normally employed in vat dyeing and particularly so in the case of package and beam dyeing.

(Request Item No. F-8)

Clarklift Trucks

Clark Equipment Co. has announced an elite line of fork-lift trucks said to be new from the wheels up. According to the company, the Clarklift line, introduced this month at the Materials Handling Institute Exposition in Cleveland, Ohio, reflects current automotive trends by the inclusion of a 12-volt electrical system, fully automatic transmission, emergency fuel tanks, foam rubber seats and automobile-like controls as standard equipment.

Exclusive features never before available on fork trucks are said to include self-adjusting brakes, a balanced swing-up hood, solid tire models with drive and steer wheels of the same diameter, combination lift-tilt controls on the steering column, optional radiator screens and all-purpose deep-taper-

ed forks. Newness is accentuated by dramatic but functional styling, the company adds.

Said to be comparable to the deluxe models of automobile makers, the Clarklift line's introduction reportedly marks the first time a fork truck manufacturer has offered 2 lines at the same time. Gas models with capacities ranging from 2,000 to 5,000 lbs. are included now, and electric models and gas models of higher capacity will be added shortly, Clark reports.

(Request Item No. F-9)

Pore-Structure Analyzer

American Instrument Co. Inc. has introduced the new Aminco-Winslow porosimeter which measures sizes of pores ranging from 0.1 mm. to 0.06 microns, and pore volumes as small as 0.0005 ml. at each pore diameter. The instrument can be used to make a complete pore-structure analysis of any fabric or porous material to determine its coolness or warmth in a 10-minute operating cycle, the company points out. The instrument measures 18½" by 8¾" by 10¾" and weighs approximately 100 lbs. Details are given in Bulletin 2282, which can be obtained by using this journal's reader service request card.

(Request Item No. F-10)

Pint-Size Fire Truck

A new pint-size fire truck for fighting fires inside textile plants, capable of negotiating narrow plant aisles, has been developed by Ansul Chemical Co. Ansul points out that the truck can go anywhere an ordinary plant lift truck can go. It is only 5' 8" high, giving the driver a good view in every direction. A man of average size can reach right over the truck to get whatever equipment he needs. Dry chemical, carbon dioxide and water are provided as extinguishing agents, according to each plant's need. The truck can carry many other fire fighting tools, too. Available accessories include ladders, utility bar, light, hose, portable fire extinguishers and extra nozzles, all mounted with panic-proof quick release brackets. There is storage room on the truck for fire blankets, boots, air masks, coats and a first aid kit. A flashing red light can be mounted on top of the cabinet. The truck and its equipment can be operated by 1 untrained man, if necessary, the manufacturer points out.

(Request Item No. F-11)

Cyanamid Softener

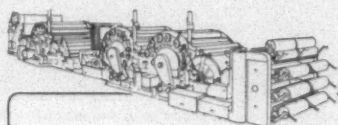
American Cyanamid Co. announces that it has gone into semi-commercial production of a new textile softener which has displayed remarkable resistance to discoloration on aging. The new softener, Cyanatex SB-100, has been run through exhaustive heating tests to prove its resistance to discoloration. According to the manufacturer, it gives unusual softness and lubricity to all synthetic fibers, cotton and wool. Very low concentrations are required for maximum softness, it is said.

The new softener is a synthesized ester



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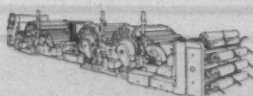
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Get complete information now on D & F "Coordinated Production," from either North Andover, Mass., or Charlotte, N.C. Ask for your copy of The D & F News.

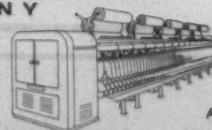
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derivative of sulfosuccinic acid, neutral in reaction and anionic in nature. It is compatible with anionic and nonionic agents, starch and salts commonly used in textile finishing, and gives less condensation in tenter frame housings and loop dryers than most other softeners on the market, American Cyanamid points out. It can be used for off-the-loom fabrics, all knitgoods, starch finishes, weighted finishes, packaged yarns, tufted spreads, percale sheeting and as a lubricant for yarns and a plasticizer for polyvinyl acetate finishes, the company notes, naming a few suggested uses.

The new product is in paste form with density of 8 lbs. per gal., is readily dispersible in a temperature of 140° F. and is stable at the boil or when cooled.

(Request Item No. F-12)

Lap Detector Stop Motion

The Warner & Swasey Co. announces that a new lap detector stop motion unit, designed to prevent uneven delivery of stock and possible resultant equipment damage, is now available for application to Warner & Swasey dual can, quad can or ball delivery pin drafters. This lap detector can be installed on all machines not originally equipped with the device, the company reports. Mounted on both sides of the pin drafter's pressure roll or cot brackets, the new lap detector automatically stops the

machine if laps form or build up on the drafting or pressure rolls.

(Request Item No. F-13)

Synthetic Dyestuff

The discovery and development of an important new range of synthetic dyes has been announced by Imperial Chemical Industries Ltd. of England. The new class of dyestuff has been given the trade name Procion. The first 3 of the Procion dyes will shortly be made available to the U. S. textile trade through Imperial's associated company, Arnold, Hoffman & Co. Inc. These 3 dyes are a rich golden yellow, a brilliant red and a bright blue. A wide range of shades is obtainable by mixing in various proportions, the company points out. Procion dyes combine chemically with cellulosic fibers by dyeing and printing methods to give outstanding fastness and are especially suitable for modern high-speed continuous dyeing processes. The dyes are expected to be of considerable interest for dyeing nylon and printing wool and silk fabrics, Imperial reports.

(Request Item No. F-14)

Pipe Sealing Compound

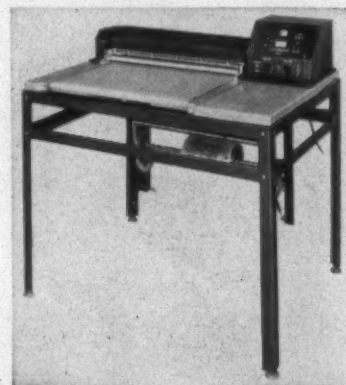
Crane Packing Co. announces a new chemically-inert pipe joint compound that reportedly will positively seal practically all known highly-corrosive liquids and solvents for services up to 212° F. Known as John Crane Chemlon pipe joint com-

pound, its base is Du Pont Teflon. The material is not only impervious to all types of hard-to-handle fluids, but possesses an extremely low coefficient of friction, Crane reports. The latter substantially reduces wrench torque, permitting connections to be drawn up to a greater degree of tightness without undue stress or strain.

The non-adhesive quality of Teflon and the non-hardening characteristics of the compound are said to allow the connections to be quickly and easily disassembled, even after years of severe service. Chemlon pipe joint compound is particularly adaptable for use on aluminum, stainless, monel or plastic pipe, and is currently available in 2-oz., screw-type jars, Crane points out.

(Request Item No. F-15)

Plastic Sheeter & Bag Maker



Plastic sheeter and bag-maker (Lectromatic Devices Inc.)

A new plastic sheeter and bag maker has recently been introduced by Lectromatic Devices Inc. Identified as the Model S-1000, the new combination unit is said to automatically measure, cut and dispense flat sheets from lower-cost roll stock in any desired length from 3" to 100". It accommodates stock rolls up to 24" wide and vends all type of plastic film, cellophane, pliofilm, polyethylene, mylar, saran, paper, etc.

Without requiring any changes, the same unit also makes bags from tubular roll stock. It rapidly measures, cuts and seals one end. Operation is said to be extremely simple. Merely set dial to the size wanted, press a button and the entire measuring, cutting and sealing operation is completed automatically. Special tension control prevents overfeeding from the roll. A plug-in panel is standard with each machine. Permits simple plug-in of the following accessories which are optional at extra cost: perforator, for punching ventilation holes in bags; foot switch for start-stop foot control; predetermined counter automatically stops machine when desired quantity is completed; stacker automatically stacks material and provides external static eliminator; electric eye for cutting printed stock, using register marks as guide for length dimensions.

Extra stock racks are also available to set up in tandem to permit simultaneous operation of multiple rolls. For increased production, a long extension table and conveyor belt is also available for easy attach-

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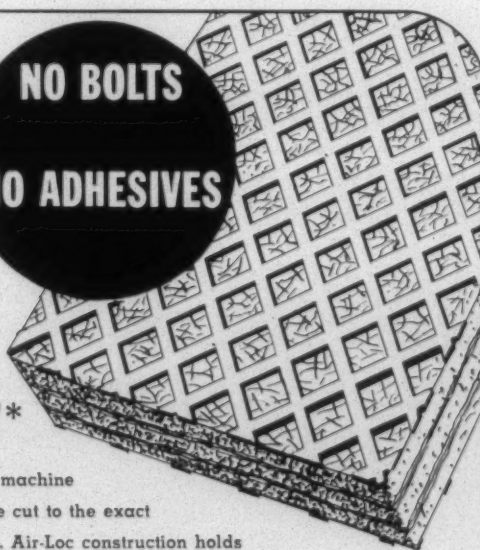
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ment. The new device is made of sturdy angle-iron. The entire mechanical assembly, including controls, sets into table as a complete unit. It plugs into any ordinary 120 v. 60 c. outlet. Over-all size—43" wide, 32" deep, 41" high. Weight 250 lbs.

(Request Item No. F-16)

Caprolan Heavy Nylon

National Aniline Division of Allied Chemical & Dye Corp. has introduced a new 30-lb. put-up for its Caprolan nylon heavy yarns. The giant package is the largest filament nylon put-up to become available to the textile industry. The yarn is supplied, knotless, on non-returnable paper tubes. It is also supplied on 10-lb. packages. Caprolan nylon heavy yarns are a completely new class of durable textile materials which were brought into production by Allied Chemical in November. The new heavy yarns range from 2,000 to 50,000 denier and eliminate the need to ply multiple ends of costly finer deniers to achieve a higher total effect, the company points out. For the first time in nylon, excellent dye affinity, for virtually all classes of dyes, high strength, toughness and durability are available in one class of yarn, it is said.

(Request Item No. F-17)

Color Tolerance Computer

A new electronic color tolerance computer is announced by Instrument Development Laboratories. This instrument, used with a colorphotometer, computes deviations from color standard and presents the answer as a single number on a dial calibrated in N.B.S. (National Bureau of Standards) units. The calculation can be completed within one minute, the manufacturer points out. When deviation beyond the acceptable tolerance is shown, the computer will present, in N.B.S. units, the precise color errors: light-dark, red-green and yellow-blue. According to the manufacturer, this instrument will compute the correction necessary to obtain the required color. When the color tolerance computer has computed the correction, the formula can be brought within tolerance standards with a minimum of color adjustments.

Although designed for use with the I.D.L. Color-Eye colorphotometer, the color tolerance computer is equally useful with colorphotometers of other manufacturers. This instrument is based on a new arrangement of the mathematics involved in the Hunter and Adams systems of color tolerance computation. It is said to be so simple to operate that any high school graduate can be taught, in a few minutes, to make accurate readings. Range of the computer is from 0 to 20 N.B.S. units. Accuracy is ± 0.1 N.B.S. unit or 3%, which is well within the tolerance of commercial color requirements. Full technical information is available from the manufacturer.

(Request Item No. F-18)

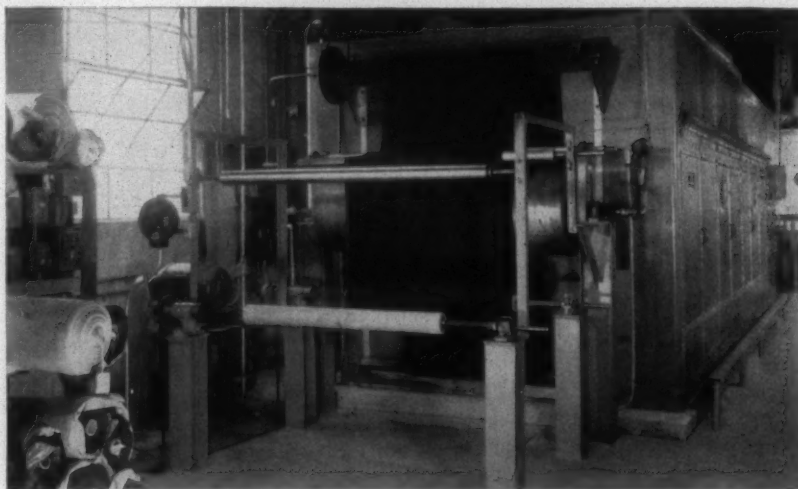
Portable Arealometer

A newly-developed portable arealometer called Port-Ar is now being offered by Spe-

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- CONTINUOUS RANGE OPERATION
- CONTROL OF FABRIC TENSION WHILE RUNNING
- ELIMINATION OF RERUNS



The installation of a new Proctor Roller Curer together with rearrangement of existing facilities, has enabled the Oxford Textile Finishing Company, Oxford, N.J., to increase production from 50,000 to 105,000 yards per day. At Oxford, the new curer achieves 85 to 95% cures.

NEW DESIGN FEATURES

New Proctor  construction reduces installation costs, provides efficient, air tight and well insulated housing—smooth, easy to clean surfaces. Uniform air distribution promotes uniform curing without shading. Variable speed motors power each alternate top roller.

Tension can be adjusted from minimum to maximum while the machine is in operation according to the requirements of the fabric being cured. Unique roll drive permits Roller Curer being placed in range operation with no change in present drive arrangement.

To find out about the complete "Oxford Story" as well as the advantages of a Proctor Roller Curer in your mill, write for latest information bulletin #412.

PROCTOR EQUIPMENT FOR THE TEXTILE FIELD

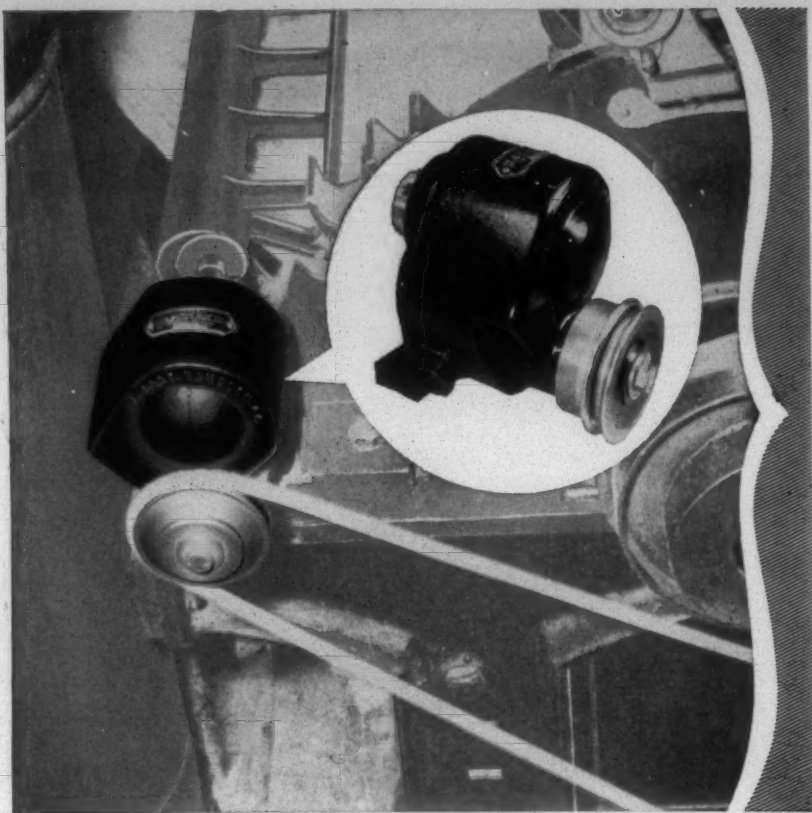
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PROCTOR & SCHWARTZ, INC.

Philadelphia 20, Pa.

Manufacturers of Textile Machinery and Industrial Drying Equipment



OUTSTANDING SUPERIORITY OF SOUTHERN STATES COMB BOXES PROVED IN NATION'S MILLS

More than 30,000 Southern States Comb Boxes have been placed in service during the past 7 years—equal to 35% of all the nation's cotton cards. Many mills have changed over 100%.

This overwhelming acceptance proves conclusively that mills can easily justify the small investment. Cardroom overseers quickly recognize the savings that result from their use: no oiling, cleaning or maintenance for the life of the unit; steady, even strokes to drive the comb with perfection; elimination of hot-running, leaky, rattling old-style boxes and their headaches.

Southern States Comb Boxes are furnished complete with an adjuster base for mounting on any make of cotton card. Bases are double tapped to permit rapid mounting on either right or left hand cards. Installation is quick and easy.

Let us show you with facts and figures how it has paid hundreds of mills to install Southern States ball-bearing, sealed-for-life, Comb Boxes; prove how much they will save you in one year. Write direct for a representative to call at your convenience.



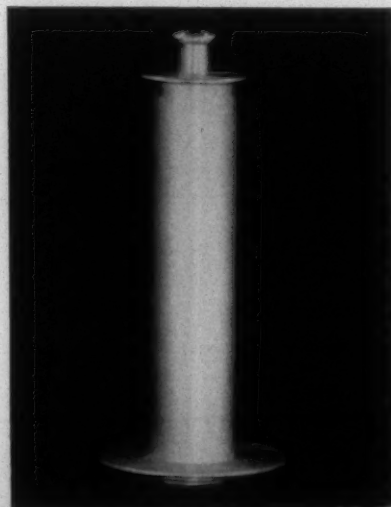
SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

FOR THE TEXTILE INDUSTRY'S USE—

cial Instruments Laboratory Inc. According to Spinlab, the Port-Ar is a complete fiber fineness testing laboratory housed in a leather case. The instrument, which weighs 15 lbs., measures the permeability of an 8-gram sample and is calibrated in microns equivalent fiber thickness and also in Micronaire index. The sample is weighed by means of a unique torsion spring balance. The null point of this balance is indicated on the permeability meter. For portability, air is supplied by means of a rubber atomizer bulb; for laboratory use an aquarium pump can be used. Since ambient air at near atmospheric pressure is used, the instrument is sensitive to variations in neither temperature nor humidity, Spinlab points out.

To operate the Port-Ar the operator checks the zero of the permeability indicating meter, places an 8-gram standard weight on the sample hook and, with the sample compression clamp in the "up" position, adjusts the zero screw until the permeability indicating meter reads near the red scale marker. The operator now takes approximately 8 grams of cotton and places it on the sample hook. One pump of the atomizer bulb will cause the meter to indicate whether the sample is too heavy or too light. If the meter goes above the red marker, it is too heavy; if below, too light. By pinching off bit by bit, the operator can adjust the sample to 8 grams. The sample is now forced in the sample cylinder and the compression plug placed on top. The compression clamp will enable the operator to compress the cotton into the chamber and hold it in this position. A few pumps of the atomizer bulb will enable the operator to read from the scale the fineness of the sample. Further information can be obtained by using this journal's reader service request card. (Request Item No. F-19)

Ring Twister Bobbin



New-type ring twister bobbin (Cloverleaf-Freeland Corp.)

Cloverleaf-Freeland Corp. has announced the development of a new all-metal ring twister bobbin. The bobbin is extremely light weight, the company points out,

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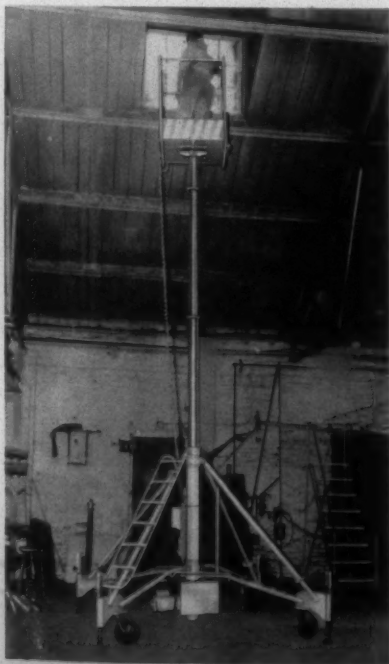
weighing only 12½ ounces. It is all-metal and therefore can be used in all the newer processes calling for extremely high temperatures. This is important, the company notes, in view of the trend towards autoclaving many yarns. There is an aluminum tube running through the center which acts as a full-length spindle bearing. This is said to be an improvement over top and bottom bearings and should result in longer spindle life. Now undergoing extensive mill testing, the bobbin has performed extremely well at accelerated speeds—15,000 r.p.m. on an upstroke twister and better than 8,000 r.p.m. on a ring twister, it is said. The driving plate at the bottom is replaceable, to take care of wear from the dog. The bobbin reportedly is priced considerably lower than other comparable bobbins on the market.

(Request Item No. F-20)

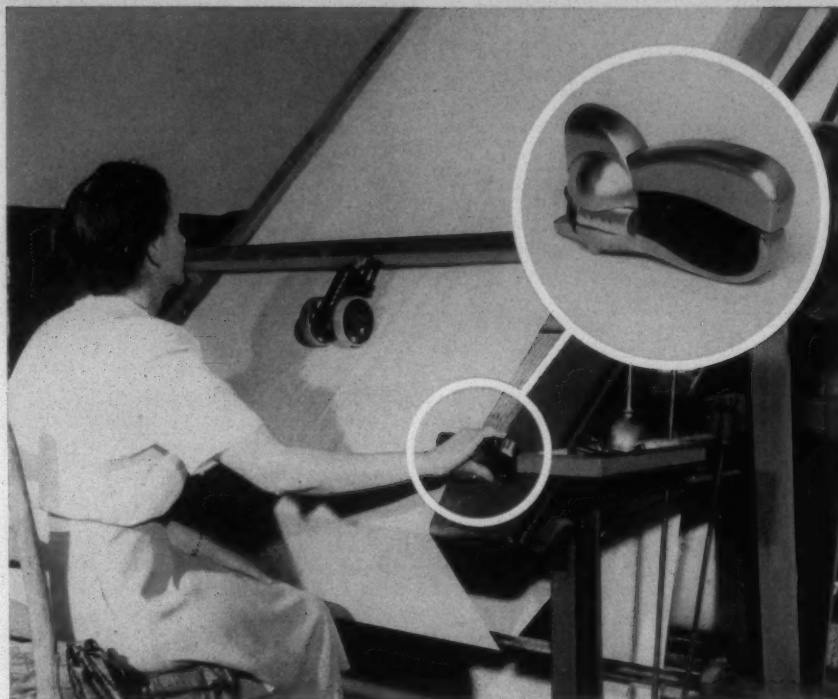
Mobile Access Lifts

The Ballymore Co. announces the production of mobile access lifts designed for maximum reach up to 42' above floor level. The hydraulically-operated lift emphasizes ease of positioning, speed of elevation, and safety, the company points out. It can be used indoors or out and can be easily transported from one location to another. It folds up to pass through doorways, narrow corridors, and in and out of elevators.

Maximum stability is assured by screw-type leveling jacks at each corner to hold the lift in a steady, level position. Large swivel-type casters permit ready mobility. A ladder provides access to the platform in the "down" position. The mechanic has complete control for raising, stopping and lowering by means of a pushbutton control located on the platform's guardrail. The



Lift platform reaches up 42' above floor
(The Ballymore Corp.)



Is your inspection room floor covered with \$1,000 bills?

Time study of the Mark-Fix 3 by one independent mill has shown more than \$13,000 savings in production cost can be had in the first year on approximately 60 inspection machines. This savings was over and above installation cost. More than \$20,000 per year savings in production could be expected in succeeding years.

The Mark-Fix 3 is a semi-automatic tagging device. Tags are standard length, and available in five different colors, easily interchanged. Tagging with Mark-Fix 3 does not damage the selvage.

Mark-Fix 3 is popular with operators as well as mill owners. Light in weight, very easy to operate, it reduces fatigue—and marks 4 or 5 flaws in the time now needed to mark only one.

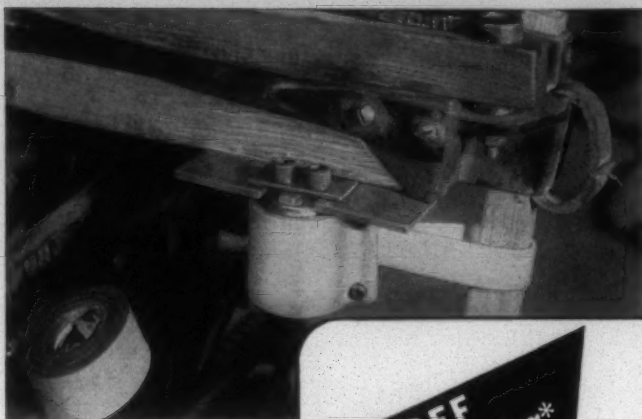
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- Positive, constant, and accurate check of shuttle on every pick. Checks power stroke, too, reducing bumper wear.
- Cuts weaver's and loom fixer's work load.
- Permits increase in loom speed.
- Stops kinky fillings and produces even selvage.
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W. D. DODENHOFF CO.

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FOR THE TEXTILE INDUSTRY'S USE—

area of the platform is 2'3" by 2'3" and platform load is rated at 350 lbs. The platform is equipped with 3' high guardrails and can be rotated through 360°. Six standard models, for maximum reach from 19' to 42' are available. All models have 110 v., 60 c. single-phase pump motor plus hand-operated pump for use where electric power is not available or when power shut-downs occur. (Request Item No. F-21)

Sandoz Dyestuffs

Sandoz Chemical Works Inc. has introduced 3 new dyestuffs—Artisil Scarlet GFL Ultradispersed; Lanasyn Red 2GL Pat.; and Artisil Direct Blue Green.

Artisil Scarlet GFL Ultradispersed dyes acetate in brilliant yellowish scarlets possessing exceptional light and wet fastness. Dyeings also show outstanding fastness to gas fading and sublimation, Sandoz reports. The dispersed scarlet dyes nylon, polyester and acrylic fibers, high-temperature processes giving the best results on the latter. The shade on nylon is bluer than on acetate. Triacetate fiber is dyed fast to light and washing, dyeing at the boil being the preferred method. Write for Circular No. 1221 in care of this journal.

Lanasyn Red 2GL Pat. is a homogenous, metallized dyestuff which is an addition to the Lanasyn range for dyeing wool, silk and nylon in bright yellowish red shades. The dyestuff is said to be remarkably fast to light and to milling. Its light fastness is believed to surpass that of any similar dyestuff, Sandoz points out. Level dyeings are obtained even on tippy wool. It is suitable for Vigoreux printing. Inserts for the Sandoz Lanasyn pattern cards, Nos. 1220 and 1223, illustrate this new red and give its properties.

Artisil Direct Blue Green is said to possess excellent fastness to sunlight on acetate and nylon fibers. It reportedly shows good resistance to salt water, perspiration and crocking. It is especially suitable for dyeing nylon fabrics which will later be heat-treated, Sandoz points out. It is useful in the production of greens and turquoise shades where both quality and economy must be considered. A leaflet giving fastness ratings and illustrating dyeings in various percentages can be obtained by using this magazine's reader service request card.

(Request Item No. F-22)

Color-Sealed Black Nylon

Du Pont's textile fibers department has announced the development of color-sealed black nylon, available initially in 200-denier, 34-filament count, packaged on standard bobbins. The company points out that the development is a basic advance in this versatile fiber which opens a broader range of creative possibilities. The color is locked in when the yarn is manufactured, and it has been demonstrated to withstand continued strong sunlight and countless washings. Fabrics created with the new yarn in preliminary testing by mills cover a wide range

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SPARTANBURG, SOUTH CAROLINA, U. S. A.

of types and constructions, it is said. In addition, use of color-sealed black nylon with other Du Pont nylon yarn gives the opportunity for new designs, patterns and interesting multi-color effects.

The new product has the physical properties and advantages of standard nylon yarn, Du Pont points out. An important factor is that the new yarn can be used in combination with other yarns in fabrics for piece dyeing. It can also be treated by the various texturing processes applicable to nylon. Du Pont expects the new yarn will be particularly suitable for the warps of a variety of upholstery fabrics.

(Request Item No. F-23)

Du Pont Dyestuff For Orlon

A new dye developed specially for Orlon acrylic fiber has been announced by the Du Pont Co. Sevron Brilliant Red B is a bright, bluish-red cationic dye designed for dyeing Types 42 and 39 Orlon staple. It yields brighter and bluer shades of pink and red on this fiber than can be obtained with Sevron Brilliant Red 4G. It dyes rapidly, builds up well, and has good fastness to light and wet processing. Level dyeings, particularly in light shades, are obtained by the use of Du Pont Retarder LAN, the company points out. Its shade is unaffected by differences in the pH of dyebaths over the pH range of 3.0 to 10. Applications from

neutral or alkaline dyebaths, however, cause a trace to appreciable loss in strength. It is suitable for dyeing blends of Orlon and wool or Orlon and rayon as its staining of wool and rayon is negligible. Sevron Brilliant Red B is said to exhibit practically no affinity for nylon and has only moderate affinity for acetate and silk. It is not recommended for acetate and silk because of very poor fastness to light and washing on these fibers. On Acrilan acrylic fiber it exhibits good affinity and build-up, fair lightfastness and good wetfastness.

(Request Item No. F-24)

Deacetylated Chitin

Moretex Chemical Products is now offering Kylan, a unique high polymeric substance derived from deacetylated chitin and used in the preparation of water-repellent finishes for fabrics. The product in combination with oils and lubricants also forms an anti-static treatment for fibers and yarns, the company points out. Application of Kylan to several typical woolen and worsted fabrics on a commercial scale have shown that with a deposition of about 3% solids of Kylan on the fabric, shrinkage on washing is reduced from 40% to less than 5% during a series of as many as 12 wash cycles in a commercial laundering operation.

Moretex describes Kylan as a polymer of

amino cellulose, and points out that the structural formula for Kylan is very similar to that of cellulose. It is possible to spin solutions of Kylan into continuous fibers having high strength and good dyeing properties, Moretex notes, and it is possible to cast films of high strength, high transparency and, depending on the treatment, varying degrees of water sensitivity.

(Request Item No. F-25)

Dye Carrier for Dacron

Tanatex Corp. announces commercial availability of Tanavol, new dye carrier which is said to completely eliminate carrier-spotting of Dacron and its blends. Tanavol is said to have all the advantages of phenolic carriers but none of its disadvantages. Tanavol provides simple 1-step dyeings, maximum color yields and lightfastness. An additionally important feature is the ability to make dyestuff adds during prolonged processing. In contrast to other dye carriers, Tanavol forms clear colloidal solutions at application concentrations. The result is an absence of local high concentrations that lead to spotting. Upon request, Tanatex Corp. will supply samples or demonstrate Tanavol in the dyehouse. A technical bulletin containing full application data is available upon request.

(Request Item No. F-26)

For the Mill Bookshelf

Roller Chains & Sprockets

Link-Belt Co. is offering a new 148-page, illustrated book describing its line of precision roller chains and sprockets. Included are sections on stock drives, installation and maintenance, lubrication, conveyor chains, casings and other related subjects. The book is designed to give all the information necessary to select the right roller chain for any given application.

(Request Item No. F-27)

Tru-Mold Shuttles

The Draper Corp. is offering copies of its house organ, *Cotton Chats*, covering the subject of Tru-Mold shuttles. The 4-page, illustrated pamphlet gives the history of the development of Tru-Mold shuttles, points out the proven advantages of them and notes the reaction they have received since they were first placed on the market.

(Request Item No. F-28)

Draper Repair Parts Catalog

Draper Corp. has announced the publication of a new, improved repair parts catalog for Draper E, K and Modified D looms. This is the first of a series of new catalogs

to be issued by Draper. Illustrations covering all mechanisms and constructions, together with complete listings, will enable mill personnel to quickly identify and order proper replacement parts. It is being issued as an aid to mills in gaining the maximum of efficiency from their Draper looms.

(Request Item No. F-29)

Electric Brakes And Clutches

Warner Electric Brake & Clutch Co. has announced the availability of a new 8-page bulletin which describes the Warner line of electric brakes and clutches. Included in the bulletin are complete specifications for primary electric brakes, clutches and clutch-brakes; fractional horsepower RF electric brakes, SF electric clutches and clutch-couplings; and integral horsepower electric brakes and clutches. Also included is information on Warner controls which are available for machines equipped with electric brakes and clutches, as well as specifications on packaged Warner electric motor brakes.

(Request Item No. F-30)

Hobbs Slitter & Rewinder

A compact summary on Hobbs Model MD slitter & rewinder (in 40", 50", 60"

and 72" sizes) is presented in a new 4-page folder released by Hobbs Mfg. Co. Engineered for versatility and high production, Model MD reportedly lends itself to manifold special adaptations to do specific jobs of slitting and rewinding. Close-up photos in the folder show typical installations of Model MD. Included are illustrations of a simplex type (1 shaft) rewinding system showing the unitized functions of feeding rolls, etc.; duplex winding system for rewind end; and duplex rewinding with web guiding on the unwind (diaphragm type). Also illustrated, among other features, are the trim removal attachment and the centrally located control console with control panel. Standard main drive, it is stated, has infinitely variable-speed mechanism and electric clutch. Unwind stands and attachments are co-ordinated with the basic slitter and rewinder equipment to meet specific production needs. Model MD features and specifications are detailed in the new folder for easy reference.

(Request Item No. F-31)

Laboratory Equipment

Mico Instrument Co. has published a new catalog-type brochure that illustrates and describes some of the Mico equipment available for textile laboratories. Equipment

FOR THE MILL BOOKSHELF

described includes the Mico Drapemeter, Mico cutter grinder, Mico Giant Microtome, the Graton-Vanderwilt polishing machine, Mico laboratory lights, Mico A.A. T.C.C. standard rain tester, Mico Fiber Microtomes. (Request Item No. F-32)

General Purpose Cutters

Taylor, Stiles & Co. is offering a 4-page, illustrated folder on its precision-type general purpose cutters. Described are the company's light, medium and heavy-duty cutters. Pictures and a sketch diagram detail the operating features of the units.

(Request Item No. F-33)

Power Transmission Equipment

A full line of power transmission equipment, including flexible couplings, variable-speed pulleys and transmissions, universal joints and motor bases, is described in a new 12-page illustrated technical brochure offered by Lovejoy Flexible Coupling Co. Information includes operating data, horsepower ratings, sizes and types for many applications and widely varying working conditions. The flexible couplings described are of the non-lubricated type. Light-duty types use spider-type cushions, while those in the medium and heavy-duty range utilize individual load cushions. Special types feature radial removability, direct connection

to engine flywheel, brake drum flange and units bored for Dodge taper lock bushings. Horsepower ratings are from fractional to 3,000; torque (static) ranges from 1½ to 5,100 ft.-lbs.

Variable-speed pulleys provide speed ratios up to 8 to 1, with horsepower ratings from ¼ to 15 at 1,750 r.p.m. They feature simple construction and instant speed adjustment, the brochure points out. Variable-speed transmissions are of the economical type. Lever or hand-wheel controlled, they provide speed ratios up to 10 to 1, horsepower ratings from 1/3 to 7½ h.p. at 1,750 r.p.m.

Universal joints described are recommended for slow-speed applications up to 100 r.p.m. Horsepower ratings are from ½ to 207. Static torque ranges from 340 to 130,700 in.-lbs. Motor bases include 3 types: (1) hand-wheel adjustable; (2) tilting-type designed for use with variable-speed pulleys and for easy belt change on cone pulleys; and (3) automatic belt tensioning-type for V-belt drives mounted in a horizontal position.

(Request Item No. F-34)

Magnetic Motor Starter

Cutler-Hammer Inc. has announced publication of a 4-page illustrated pamphlet describing the new features that have been incorporated into the company's Bulletin 9586 a.c. magnetic motor starter. The literature points out that the Bulletin 9586 still retains the features of "3 star motor con-



POSTEX COTTON MILLS INC. of Post, Tex., is packaging its Garza sheets and pillowcases in Perfo-Roll, perforated polyethylene sheets in roll form, printed and fabricated by the Shellmar-Betner Flexible Packaging Division of Continental Can Co., Mt. Vernon, Ohio. These poly packages, carrying gold and blue printing for contrast and identification, can reportedly withstand extensive handling by customers while maintaining the clean freshness of the sheets and pillowcases.

trol," and now has improved pressure-type terminals; a snap-on contact block cover which locks into place and yet provides for instantaneous inspection and contract servicing; an exclusive visual or audible alarm circuit; and a new plastic-covered coil insulation, vacuum impregnated and standard in 3 colors. (Request Item No. F-35)

Dye Carrier For Dacron

The Tanatex Corp. is now offering a technical bulletin on Tanaval, the new dye carrier for Dacron which is said to completely eliminate carrier spotting. Tanaval is a modified solvent-type carrier which forms clear colloidal solutions at application concentrations. The result, the bulletin points out, is an absence of local high concentrations that lead to spotting. The bulletin also discusses the mechanism by which Tanaval provides spot-free, fast dyeings, together with practical formulations for dyeing Dacron and its blends with natural and other synthetic fibers.

(Request Item No. F-36)

How To Cut Water Treatment Costs

Would You Spend 10 Minutes a Day to Cut Air Conditioning Water Treatment Costs? is the title of a folder published by Oakite Products Inc., manufacturer of industrial cleaning and related materials. Subject of the folder is Oakite Airefiner No. 52, a mildly alkaline compound that is said to control scale, slime, algae and corrosion. With this compound, according to the manufacturer, water treatment becomes a simple process of treating the water, adding upkeep, testing daily, and draining the system when needed—the operation taking



You can spin **BETTER YARN** at **LOWER COST** with the new improved

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78% Wool and 22% Cotton, or 25 oz. and 30 oz. All Wool. In either type, you get the highest quality clearer cloth money can buy.

The new ORR CLEARER CLOTH is a worthy companion to Orr's All Wool, chemically treated

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Georgia and Alabama—Talladega Foundry & Machine Co., Talladega, Ala.

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one man a mere 10 minutes a day. Testing is simplified by using the Oakite indicator solution, furnished without charge. This water treatment method, used successfully in plants where tank capacity is 1,000 to 50,000 gals., has provided effective control with complete safety, and has proved low in original and upkeep cost. The folder, which gives specific instructions for the use of Oakite Airefiner No. 52, can be obtained by writing on company letterhead to this journal: (Request Item No. F-37)

Package Testing Booklet

The importance and procedure of pre-testing corrugated boxes is fully discussed in a revised edition of *How To Test Corrugated Boxes* recently published by Hinde & Dauch. The 24-page booklet, No. 11 in the H&D Little Packaging Library Series, describes and illustrates the various tests which assure ample product protection in corrugated packaging and includes a quality check chart for appraising the efficiency of corrugated boxes. The new edition also contains information on existing carrier regulations as they apply to the shipment of corrugated-packaged products.

(Request Item No. F-38)

Engineered Drying

The air conditioning and drying division of Surface Combustion Corp. announces publication of a new 2-color brochure which describes new surface high-speed, low-temperature dryers for continuous drying processes. Request Bulletin K-156 through this journal's reader service request card. (Request Item No. F-39)

Filtration

Graver Water Conditioning Co. now has available copies of Bulletin WC-107A, *Water Filters, Pressure Type*. This 12-page, fully-illustrated bulletin completely describes the uses, design features and engineering details of pressure sand and gravel filters. Details of all accessory equipment, the different types of controls available and a detailed table giving capacities, sizes and space requirements are included. Cutaway views of both horizontal and vertical filters are shown as well as details of strainers, distributor systems and piping arrangements.

(Request Item No. F-40)

Hi-Vi Vibratory Equipment

Eriez Mfg. Co. is offering a 6-page, 2-color folder describing its recently announced new type of electro-permanent magnetic vibratory equipment. Called Hi-Vi, this new line of equipment consists of vibratory feeders to feed bulk materials at carefully controlled rates of speed (ounces to tons), and unit (bin) vibrators to speed and assure the flow of materials from bins, hoppers, etc. The brochure describes the new Hi-Vi design which incorporates a lifetime permanent Alnico magnet and an a.c. electro-magnet. No separate rectifier is needed with Hi-Vi as the permanent magnet acts as an automatic, inherent, magnetic rectification

You Have 3 Big Advantages
A Permanent Hand
Lasting Crush Resistance and
Dimensional Stability
Higher Breaking Strength and
Abrasion Resistance

with the use of

PENFORD FINISHING GUMS

These new starch ethers give excellent results in textile operations when combined with either urea-formaldehyde or melamine resins. If you are a textile finisher or processor who does not know about the ease and simplicity of using Penford Finishing Gums, Penick & Ford offers the services of their Technical Sales Service Engineers. They will be glad to advise you as to the best Penford Finishing Gum for your finishing requirements and how to best apply it with your finishing equipment.

(U. S. Patent Nos. 2,516,632; 2,516,633; 2,516,634)

Valuable brochure is available upon request. Send for your copy now.

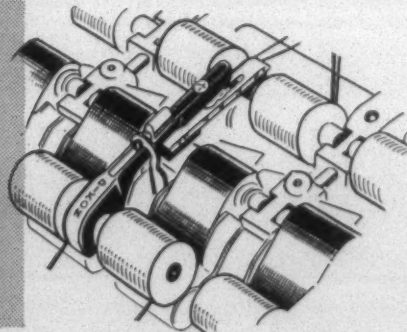
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Nearly 1,000,000 Spindles

have been recently involved in change-overs and new frames as over 100 textile leaders adopt the new Dixon Saddle Guides — at savings in initial cost and operating cost. Included are:

| | |
|-----------------------------|------------------|
| Deering Milliken Mills..... | 112,000 spindles |
| Saco-Lowell Shops | 420,000 spindles |
| J. P. Stevens & Co. | 81,000 spindles |
| Whitin Machine Works | 110,000 spindles |

For data and savings estimates, write —

DIXON CORPORATION

BRISTOL

RHODE ISLAND

Southern Sales: R. E. L. Holt, Jr., and Associates Inc., Box 1319, Greensboro, N. C.

Northern Sales: William R. Fox, P. O. Box 380, Providence, R. I.

FOR THE MILL BOOKSHELF

system. Old-style electro-magnetic units are pull—release system. The Hi-Vi units are pull—push systems requiring less power consumption while moving bulk materials faster for less money and with less wasted effort, the company points out.

(Request Item No. F-41)

Unit Heaters

The latest improvements, specifications and complete performance data for Herman Nelson horizontal and vertical unit heaters have been written into a new 36-page product bulletin by the American Air Filter Co. Inc. A.A.F. manufactures air filters, dust control, and heating and ventilating equipment. Bulletin No. 700A includes complete hot water and steam performance tables, dimensions, selections, applications, descriptions of cabinets, elements, motor mountings, fans and accessories, controls, suggested layouts, piping diagrams, and other technical data.

(Request Item No. F-42)

Rotary Joints

Sealol Corp. has issued a 4-page bulletin describing and illustrating the various models in the company's line of balanced pressure rotary joints designed for conveying

steam, vapor or liquids under pressure. The bulletin features cross-section, dimensional views of the 3 models offered. Type S is designed for installations where an integral syphon pipe is required. Type L is for installations where no syphon is required or where liquids or vapors are fed into 1 end of a shaft, roll or drum with condensates or liquids being removed from the opposite end. Type A, with its straight-through design, is for installations where the Type L rotary joint does not exactly satisfy the installation requirements. These joints handle pressures of 150 p.s.i. maximum for steam, 350 p.s.i. maximum for fluids, and are equally adaptable to vacuum service, the bulletin points out. They handle speeds up to 1,750 r.p.m. and temperatures up to 425° F.

(Request Item No. F-43)

Improved Materials Handling

Case histories on how 6 prominent manufacturers in unrelated fields improved their methods of handling materials are available in a new brochure published by National Vulcanized Fibre Co. Entitled *Materials in Motion . . . by National*, this booklet describes the use of lightweight vulcanized fibre containers to increase efficiency, reduce costs and simplify methods of materials handling. Twelve 2-color pages with 41 illustrations are used to show National's Kennett line of equipment at work. The illustrations include 28 typical Kennett containers with the particular materials handling functions they serve—such as production line storage, conveyor transfer, work-in-process storage, inter-plant transfer and waste disposal. (Request Item No. F144)

The Chemistry of Phenolic Resins

(By Robert W. Martin, research supervisor with the Shell Development Co., Emeryville, Cal.; Published by John Wiley & Sons Inc., 440 4th Ave., New York 16, N. Y.; 298 pps. \$9.50)

Written from the point of view of the organic chemist, this work constitutes a single source of information on the formation, structure and reactions of phenolic resins and related products. Chapter headings in-

clude phenol alcohols, dihydroxydiphenyl-alkanes, phenolic resins, cure of phenolic resins, joint reactions of phenols and aldehydes with an added reagent, heterocyclic products, the reaction of phenolic resins with unsaturated compounds, reactions of phenol-aldehyde products, and reaction kinetics. The author has culled the major contributions in each field and indicates the reactions that seem to be best supported by the evidence.

Plant Location in Theory and in Practice.

(By Melvin L. Greenhut, associate professor, department of economics and business administration, Rollins College, Winter Park, Fla.; Published by the University of North Carolina Press, Chapel Hill, N. C.; \$7.50)

The theory of industrial location has remained largely outside the general scope of economics. One reason for this has been the failure to explain within a single system of thought the fact that a particular factor might be important to one industry and not to another. This work examines the transition from the purely competitive approach of the 19th and early 20th century theorists to the monopolistically competitive locational framework of today. It focuses attention upon data which make the plant site a means of control over economic areas rather than simply the basis of productive operations.

World Cotton Statistics

(Published by the International Cotton Advisory Committee, South Agriculture Bldg., Washington, D. C.; 145 pps., \$2.00)

This work, described as a base book of statistics on cotton with supplementary data on textiles and man-made fibers, contains information on cotton planting and picking dates, number of cotton spinning spindles in the various countries, per capita consumption of the major textile fibers, by countries, and production, exports and imports of cotton textiles and rayon. Detailed tables of imports, consumption and stocks are given for nearly all countries. The purpose of the



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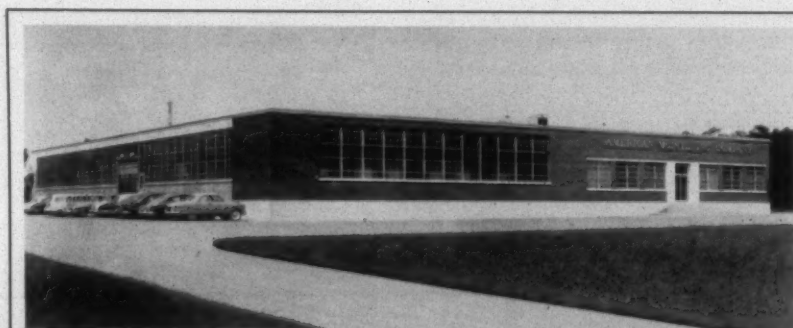
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THE NEW CLEVELAND-ROWAN PLANT of American Moistening Co. is now in operation. Located 11 miles west of Salisbury, N. C., on U. S. Highway 70, this plant has been designed and planned to provide the ultimate in service. It has been completely equipped with machines engineered and selected to fabricate all types of sheet metals, the company points out, from air conditioning ducts to half-inch boiler plate, angle iron and bar stock. This equipment will be used for Ameco products and also for job shop work or any high production needs of Southern plants. In addition to manufacturing, the new plant has complete repair and warehouse facilities.

book is to provide, in 1 volume, as complete a reference as possible to the various components of the world cotton situation as expressed by statistical information from many countries through the years.

Supervisors Safety Manual

A *Supervisors Safety Manual* has been published by the National Safety Council. Written by staff engineers of the council's industrial department and carefully review-

ed by safety experts from business, industry and government, the manual provides foremen with a comprehensive guide to all phases of industrial safety. The manual can be used as a text for group training or self study or as a reference work to solve most of the general safety problems encountered by the foreman in his work day. It provides him with a basic knowledge of accident prevention techniques and human relations know-how. The manual includes material on the human side of safety, maintaining

interest in accident prevention, first aid, protective equipment, housekeeping, materials handling, machine guarding, portable power tools and fire prevention. The manual is illustrated with numerous photographs and drawings in its 354 pages. It is available to council members for \$3.25. Non-member prices are double. For a brochure giving a complete list of the contents and quantity prices, write the National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.

Serving The Textile Industry

U B S Chemical Corp. Building Plant In S. C.

U B S Chemical Corp. of Cambridge, Mass., formerly known as Union Bay State Chemical Co. Inc., is constructing a new plant at Mauldin, S. C., near Greenville. The first phase of construction will consist of sales offices, packaging, warehousing facilities and a research and development laboratory. The building will be of modern masonry construction. Offices and the laboratory will be air conditioned. Daniel Construction Co. of Greenville expects construction to be completed by July 1.

Duplan Sells Vacated Grottoes, Va., Plant

Reynolds Metals Co. has purchased the Duplan Corp. plant at Grottoes, Va., where Duplan discontinued operations last November. Reynolds expects to begin operations in the plant some time this Fall. A spokesman for Reynolds said it has not been determined whether the newly-acquired plant would be used for production of plastic film for packaging or for yarn.

The Texas Co. Transfers Its Research & Technical Dept.

The Texas Co. has announced the transfer of the principal offices of its research and technical department to their research center at Beacon, N. Y. The address of the research center is P. O. Box 509, Beacon. Telephones Beacon 1170-1171.

Burkart-Schier Appointed Sales Agent For Avisco

American Viscose Corp. and Burkart-Schier Chemical Co., manufacturing chemists of Chattanooga, Tenn., have signed a contract by which the Tennessee firm will manufacture certain Avisco textile chemicals to specification and act as sole selling agent in 17 states. American Viscose will sell chemicals directly in the states not covered by the arrangement with Burkart-Schier, it was stated. The latter will function as selling agent in Arkansas, Florida, Georgia,

Illinois, Indiana, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, North and South Carolina, Ohio, Tennessee, Texas, Virginia and West Virginia. Testing and evaluation of chemicals for sizing, finishing and conditioning will continue to be done by the corporation's textile research department as well as the Burkart-Schier laboratory in Chattanooga, the statement said. Chemicals are proven at textile research on full-scale equipment for processing rayon, cotton,

wool, and other fibers and fabrics. Burkart-Schier will offer fast, local technical service as an adjunct to the continuous research program and will be in a position to make immediate deliveries.

Comer Affiliates With Cotton Mill Machinery

The affiliation of Comer Machinery Co. Inc., Atlanta, Ga., with Cotton Mill Ma-



INDUSTRIAL RAYON CORP. recently held open house in its new 80,000-square-foot building which houses the firm's central engineering shops. The new facility, located at 4540 West 160 Street, Cleveland, Ohio, where the company has acquired 14 acres of land in a new industrial tract, provides expanded facilities required to keep pace with the company's enlarged program of mechanical research and development work under which new rayon and nylon manufacturing techniques are being tested and applied. It also includes a completely new and modern layout for the manufacture and assembly of components for continuous process rayon machinery, for the assembly of bobbins used in rayon tire cord twisting operations, and for precision testing of gear pumps and related process equipment. Final inspection of the company's continuous process thread-advancing reels is accomplished (above) with a specially-designed stroboscopic light apparatus. The inspection machine, developed by Industrial Rayon's engineers, checks these reels under simulated operating conditions. Lorin Corey, manager of the machinery division which supervises the shop operations, reports that many such technological advances have been incorporated in the facilities of the new plant.

SERVING THE TEXTILE INDUSTRY—

chinery Co., Charlotte, N. C., has been announced by Ben T. Comer Jr. and Don E. Hamilton, presidents of the companies. Mr. Hamilton will become an officer in Comer Machinery, and his firm, Cotton Mill Machinery, will be known as Comer Machinery Co. of North Carolina. Operations of the 2 mill machinery companies, both established in 1933, have paralleled each other, both being concerned with buying and selling used machinery, making appraisals of machinery and mill properties, handling liquidation mergers, and other financial transactions pertaining to the textile industry. A. V. Hill, who has been with Comer in Atlanta the past 7 years, has been transferred to Charlotte to assist Mr. Hamilton in that area. Offices of Comer Machinery Co. in Atlanta are at 680 W. Peachtree St. N. W. Comer Machinery of North Carolina has offices at 5236 Wilkinson Blvd., Charlotte.

Stellite American To Offer Swiss Line Of Counters

Stellite American Corp., with headquarters in New York City, has been appointed sales agent in the U. S. and Canada for N. Zivy & Cie, S. A., Basel, Switzerland, manufacturer of counters for the textile industry, including pre-set counters, pick counters, measuring counters, revolution counters, etc.

Chemical Firm Organized In Cleveland, Tenn.

Lumar Corp., a new chemical company, has been formed at Cleveland, Tenn., to manufacture a number of specialized chemical products for use by the textile industry. The new firm, headed by Dr. William F.

Luther as president, has its plant and general offices at 217 Mill St. in Cleveland, and will specialize in dry processing chemicals such as fugitive identification tints, anti-static agents, spinning assistants, wax finishes and winding emulsions. Dr. Luther has had broad experience in the field of textile dry processing chemicals, having served the past 10 years as director of research for Dixie Mercerizing Co. and its subsidiaries. In addition he has served as head of the textile department of the Industrial Research Institute of the University of Chattanooga. Other officers of the firm include T. J. Marler, head of Marler Chemical Co. of Cleveland, vice-president and treasurer; and Jac Chambliss, secretary.

Allis-Chalmers Appoints Distributor In Alabama

The Mill & Textile Supply Co. Inc., 3130 Third Ave., South, Birmingham, Ala., has been appointed a distributor for Allis-Chalmers general purpose equipment, according to an announcement made by Allis-Chalmers Mfg. Co., Milwaukee, Wis. Mill & Textile Supply will act as distributor for A-C motors and controls and Texrope V-belt drive equipment for the state of Alabama. L. S. Selman Jr. heads the 10-year-old firm.

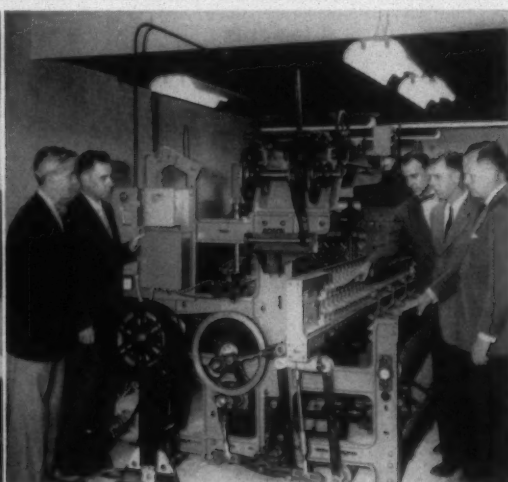
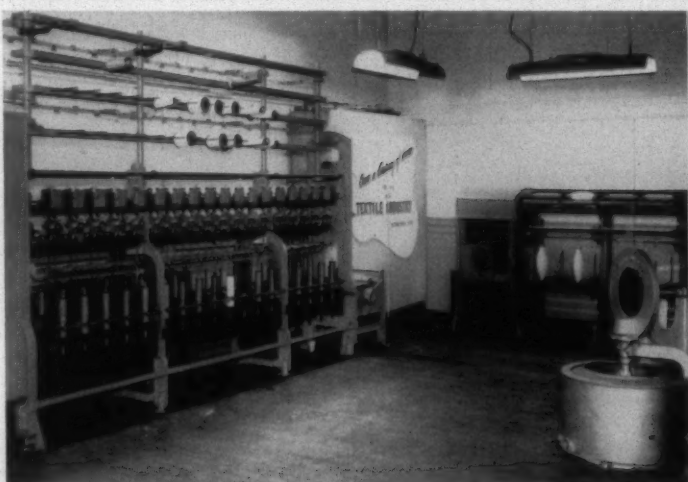
Blackman-Uhler Acquires Land For Expansion Plans

Expansion of production and research facilities is now under way at Blackman-Uhler Mfg. Co. of Spartanburg, S. C., a division of The Andover Co. To provide for increased manufacturing and warehouse facilities in the South, Blackman-Uhler has acquired additional land adjacent to the tract purchased in August 1954 when The Andover Co. was formed by the merger of

the 4 companies now operating as separate divisions: Alliance Color & Chemical Co., Alliance Chemical Corp., Blackman-Uhler Co. and Blackman-Uhler Mfg. Co. Alliance Color & Chemical Co., Newark, N. J., also with an expansion project under way, is erecting a new boiler house and machine shop. The space formerly occupied by these units will be used to enlarge the firm's laboratories and offices.

Dow Corning Sets Up Lab For Syl-Mer Finish

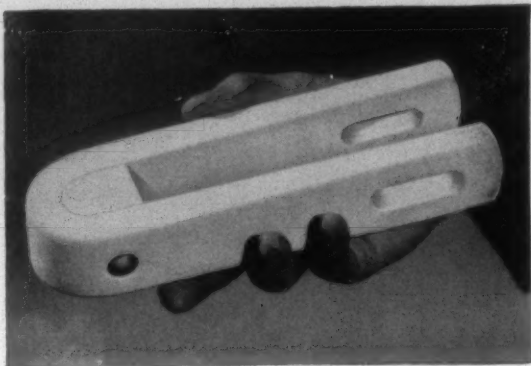
A quality control laboratory for fabric with a Syl-Mer finish, the Dow Corning silicone treatment for decorative and upholstery fabrics, has been established at existing production facilities in Greensboro, N. C. This quality control laboratory guarantees that Syl-Mer licensees are producing fabrics that will measure up to Dow Corning performance standards as an "invisible slipcover." Approved fabric earns the right to wear a hangtag identifying it to the furniture manufacturer. The manufacturer, in turn, can attach a hangtag furnished by Dow Corning to his furniture. This tag is being promoted to the consumer as the hallmark of a Syl-Mer finish. Completely staffed by technicians, the laboratory is equipped for rapid testing of spray rating, standard staining and mark-off qualities of samples representing hundreds of thousands of yards of manufactured fabrics from Syl-Mer finish licensees.



THE FLETCHER WORKS, manufacturer of narrow fabrics looms, centrifugals and throwing equipment, recently opened a new showroom in its building at 2nd and Glenwood Avenues, Philadelphia, Pa. The showroom, which has been integrated with Fletcher's sales offices to permit sales engineers to demonstrate "live" all the equipment they sell, marks the first major step in a complete modernization, streamlining and realignment of the company's production set-up and reorganization of the firm's sales engineering staff. The program will cost in excess of \$200,000, according to Edward T. Taws, Fletcher president.

Formal dedication of the new retail-type showroom was marked by an open house attended by many of the firm's customers. On display for the event (left, above) were a Master Duplex doubler-twister, a Speedex Winder and (foreground) one of the company's first centrifugals. Shown looking over a new Fletcher nine-foot narrow fabrics loom (right above) are (left to right) Harry B. Allison, company engineer; H. J. Roessel; Frederic Claghorn; Robert Scholes, vice-president in charge of production; and Edward T. Taws, president.

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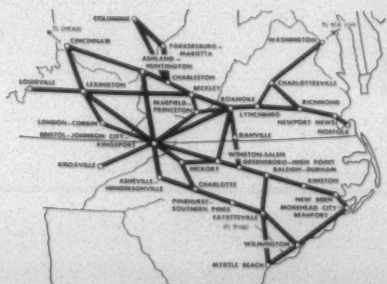
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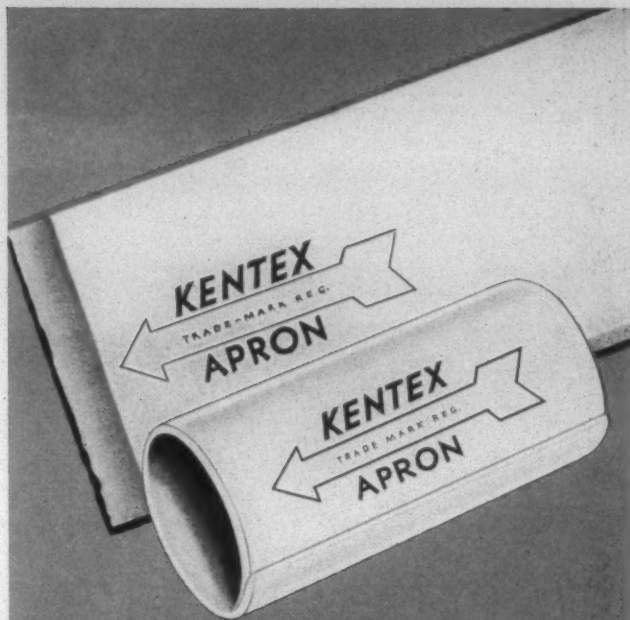
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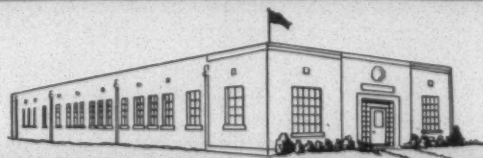
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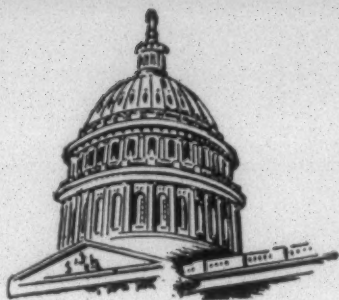


TEXTILE APRON COMPANY

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Hugh Williams & Company, Toronto, Canada—Canadian Representative



WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

The A.F.L.-C.I.O. Executive Council has slammed down its foot on internal battles "frustrating organization drives," and said it will move to unionize 700,000 textile workers. Noting there are 575,000 of them in the South, it said the drive would be concentrated on them first. Only about 300,000 are in the unions now, mostly in Northeastern states. Intention was to start this "drive" last December, but it bogged down in a furious battle between the A.F.L. and C.I.O. wings of the union. An effort will be made now to go ahead despite the bickering.

John R. Livingston has been set up as top union organizer to master-mind the big new offensive against "the massive chain textile companies still non-union." Burlington Mills and J. P. Stevens & Co. are named as price objectives. Secretary Schnitsler of the merged union said the "drive" is going ahead "regardless of which union's toes get stepped on." He said both textile unions have been begging the parent group for funds.

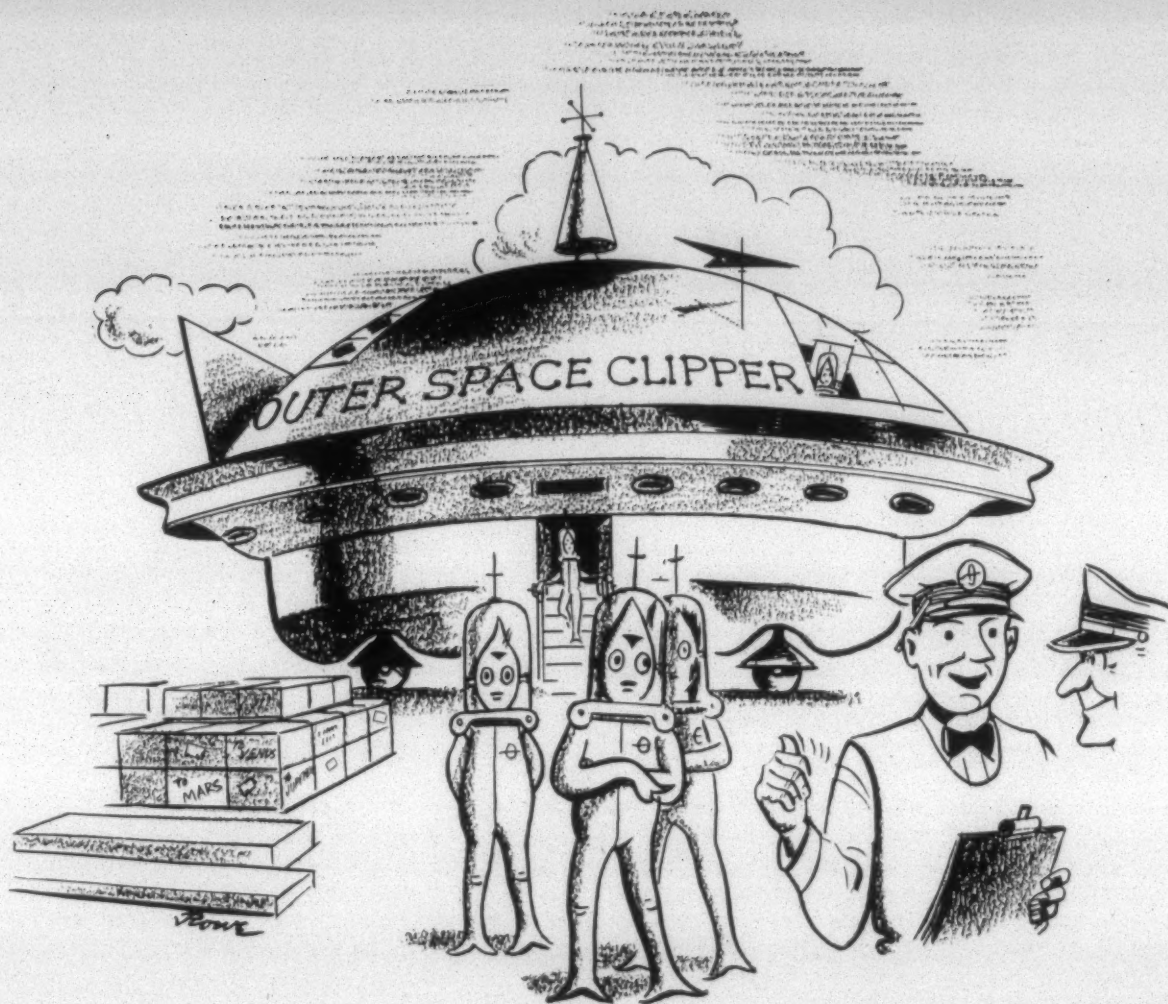
Mr. Livingston said he expects to encounter a lot of difficulty in the South in bringing textile workers into the union. There is a movement in some towns, he said, to make organizers swear they are "against de-segregation" before they try to organize. He said he thought Southern workers would "take kindly to organizing" if only one big union is in the field, and the matter is not "mixed up with a lot of extraneous issues." He discounted efforts of Southern unions to cut loose and form a Southern federation of their own.

More than 16 million leaflets of what amounts to a political blacklist for use in elections is being mailed by A.F.L.-C.I.O. to each of its members. The document is intended to influence votes for or against members of Congress, and will list 20 or 21 national issues. No preference will be listed as to the presidency. Member workers will not be advised outright how to vote, but the word "wrong" vote will be in different type from "right" vote. It is not revealed how the mailing costs will be financed.

An unexciting Congress is on the home stretch, with about one-half of the legislative program laid down at the start not acted on. The House has disposed of 12 major money bills, and the Senate five. Highly controversial bills on social security changes and highway building will be adjusted and rewritten in conference. The public housing bill has passed the Senate, and faces a battle in the House. Leaders must decide whether to call up proposed Federal aid for schools, and "civil rights" proposals. And Democrats must decide whether to attempt again to cut income taxes.

The President has not gained all he wanted in this session of Congress, but he has fared well on the highly controversial issues. He vetoed the hodge-podge farm bill, and the predicted uprising of farmers did not occur. He vetoed the natural gas bill for reasons other than the bill itself, which he would like to have approved. A substitute farm bill has been passed and signed. The one remaining high hurdle ahead is the proposal to grant new foreign aid.

More foreign aid for Tito is being viewed unfavorably in the House as a result of his visit and heart-warming welcome to Moscow. He has collected more than \$420 million in aid from this country since his alleged "break" with the



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Stalin crowd, and had \$55 million in loans from the Export-Import Bank. The feeling is that Tito has played both ends against the middle, with this country high on his "sucker" list, and he's moving now to become the world's top Communist leader. He is said to have accepted \$200 million in "easy term loans" from Russia.

The Supreme Court, in a decision in sharp contrast with earlier decisions this year, has held a state may properly enjoin mass picketing and threatened violence in a strike. Justice Reed read the opinion. It was held that Wisconsin rightly used its power to ban union activities in the Kohler strike which could come within the scope of N.L.R.B. as unfair labor practices. A dissent was enjoined in by Chief Justice Warren and Justices Douglas and Black.

These radical minded judges, Warren, Black and Douglas, have produced the recent decisions that are bringing down a torrent of criticism on the Supreme Court. They adhere to the concept of strong, centralized, unilateral government, and each is regarded as a dedicated Socialist. In each instance the recent decisions whittling down state's powers and functions have been produced by one of them, including the quixotic school segregation decision.

Each of the three judges had no substantial judicial experience before entered in the bench of the Supreme Court. Justice Black had been a police court judge in Birmingham for 18 months. For unexplained reasons the other six judges have gone along with them on such decisions as the school integration and state sedition cases. There is indication the three, as a compact unit of dedicated radicals, are highly resentful of dissenting opinions, although freely dissenting themselves from opinions of the other judges.

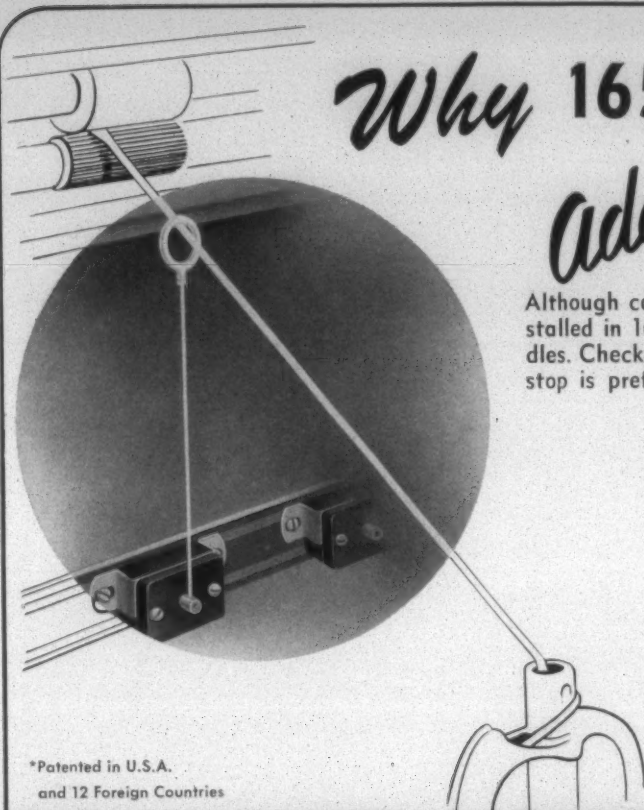
Perhaps individual rights of workers under the law as they have been known in the past have been wiped out for all time under one of the Court's latest decisions. In the Railway Labor Case the Court deprives the worker of his civil right to join or not join a union, and puts him at the whim of a majority in Congress in whatever restrictive legislation it may enact. In a word, the Court says he must join a union, or be deprived of right to his job.

No Supreme Court in the history of this country has gone so far in striking down personal rights of a man in gainful occupation. Such protection is the very keystone on which the Constitution was written. The Court baldly says in its decision it is following what it conceives to be "shift of opinion" of the public, and accepting any restriction which an employer and a great union may agree upon, and impose, to protect and promote their own private interest.

The avalanche of criticism of the Court includes the charge it is completely changing the trial of cases, and of judicial procedures. Some decisions indicate, it is contended, that the judges are "ideological minded," and more interested in the promotion of "causes" than in adhering to judicial processes and accepted principles of law. Objection is made, also, to speeches of judges before conventions and audiences in which they appear as "protagonists."

Steel workers are asking for wage increases and new fringe benefits that amount to between 20 and 30 cents an hour per employee. Employers see another sharp increase in steel prices to cover production costs. The union says its much higher demands this year are "in keeping with over-all economic conditions." It also says the industry can shift to higher pay rates without raising the prices of steel. Heavy construction accounts for most of the demand for steel now.

The Senate Labor Committee may abandon its inquiry into the pilfering and looting of some union pension and welfare funds. Senator Douglas, head of the inquiry, is joining another committee, and under union pressures no one left on the Labor Committee wants the job.



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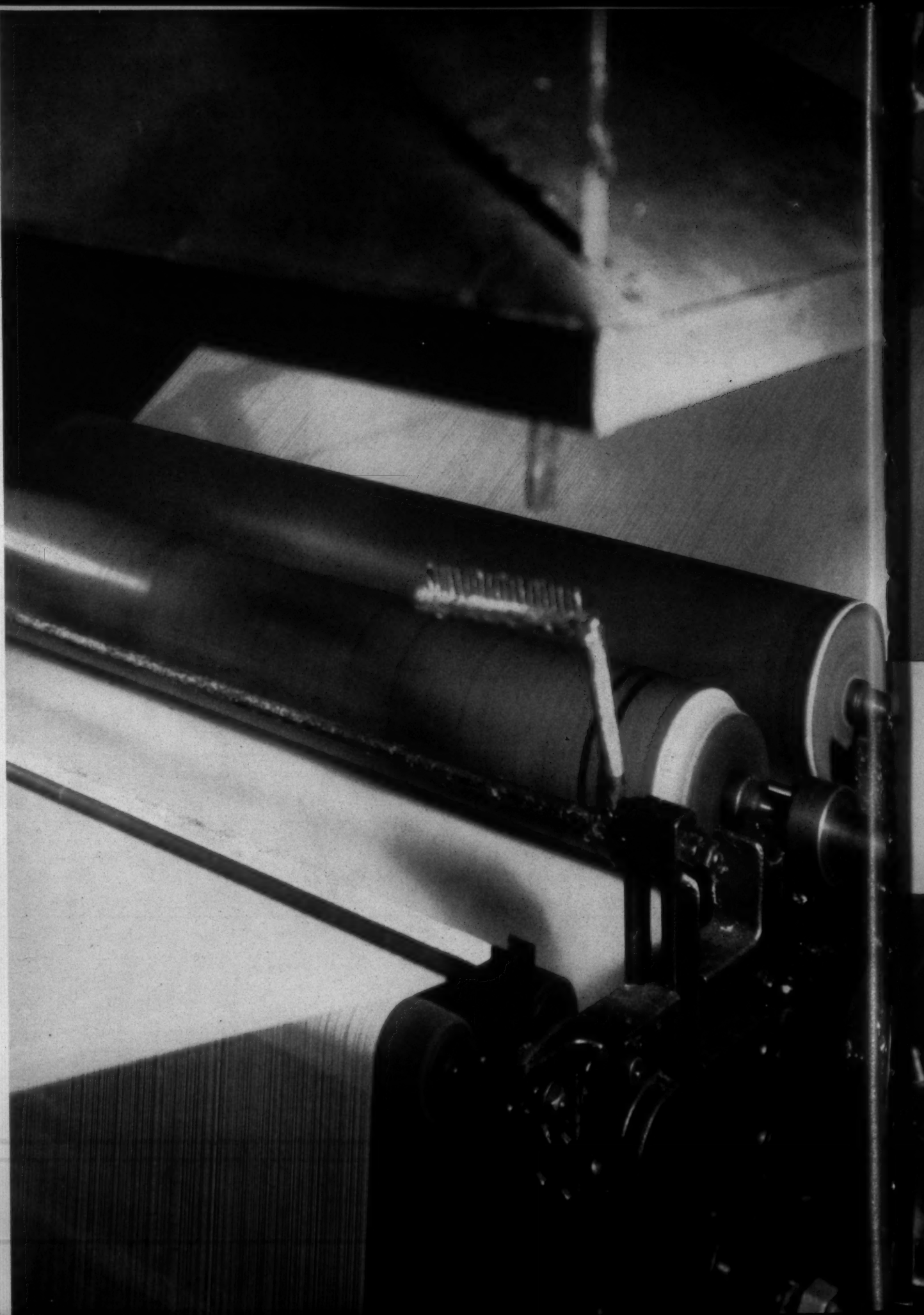


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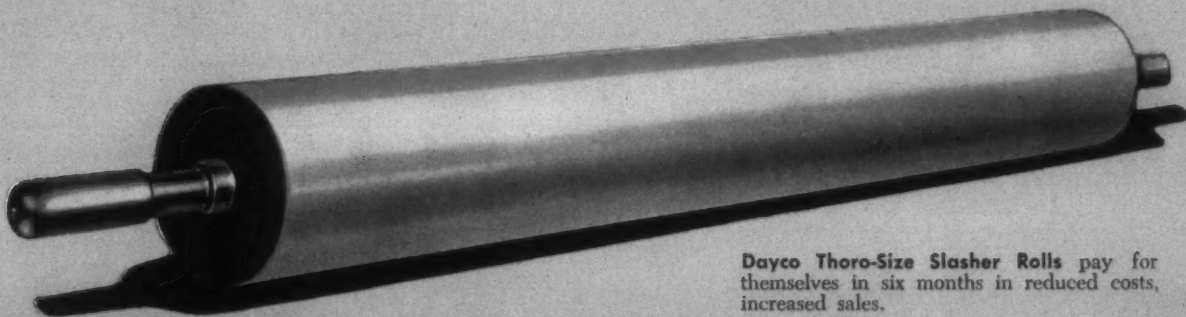
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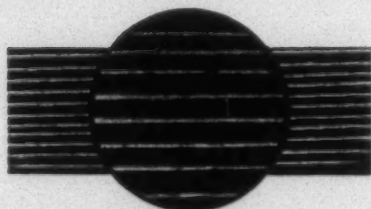
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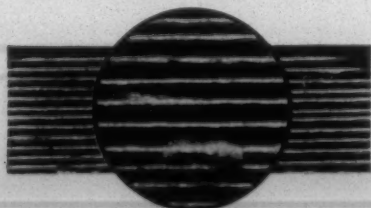
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Clean, uniform sizing proves superior performance of Dayco slasher rolls



Irregular sizing denotes inadequate control of ordinary slasher rolls

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Ike's Popularity Doesn't Extend To Foreign Trade

One of the peculiar aspects of the Eisenhower Administration is that its policies are generally accepted without question by the majority of United States citizens. There is an acceptance of the President expressed somewhat like this: "Well, he is a good man with sincere motives, and he is always forthright about everything. While I may differ with him in certain matters, I'm convinced that he is working for the benefit of everyone."

That very attitude, we believe, is going to result in re-electing Mr. Eisenhower this November if he determines that his health allows him to run. Personal popularity may also result in giving him majorities in both houses of Congress. That, if you don't recognize it, is going out on a limb. But, we will just bull ahead with that prediction, remembering that in 1952 we felt that Mr. Eisenhower would win overwhelmingly but hesitated to say so other than in private conversations.

The situation this year is a little different. People like what they have seen in the past 3½ years. They want to keep it. In 1952 they were just simply tired of what had been going on for the past 20 years; they were amused by Mr. Stevenson, but not sufficiently attracted to his deft usage of words to believe that he would make a good president. So, this year they like Mr. Eisenhower and want to keep him around. Whatever the Democratic Party does in convention won't be of great significance. The people are just plain bored with Mr. Stevenson; wise-cracking doesn't run a government. Kefauver talks out of both sides of his mouth, and you never know what he stands for. Harriman is just a small-bore Roosevelt.

Which leads, in our way of thinking, to the re-election of Mr. Eisenhower if he runs. And, assuming an easy victory for him, there danger lies.

Because, with such a vote of public confidence, it is doubtful that the Administration will be inclined to change any of its present policies.

The Eisenhower foreign trade policy has worried the textile industry for several years. It has hurt the textile industry of the United States, and if the present trend continues it will hurt it even more.

If you are like us you don't threaten to vote against Mr. Eisenhower because of his handling of tariff and import matters. You like almost everything else about his approach to affairs of state, and you can't conceive of the Democrats coming up with anybody so generally satisfactory.

How do you get at him, then, on the tariff question? Certainly not through the Department of State, or Commerce; all you have been able to get so far is an "awareness" of the import threat.

In Congress lies the only hope. Here, at least, you can reach three people—your district's Representative and your state's two Senators—because they will listen to you as a voter.

Currently before Congress is H. R. 5550, the purpose of which is to endorse United States participation in the Organization for Trade Co-operation. O.T.C. would be the policing arm of the General Agreement on Tariffs and Trade (G.A.T.T.), an executive agreement which has never been even referred to Congress.

In Congressional hands now is a petition, signed on behalf of nearly 700 predominantly small business concerns, as well as agricultural producers, labor unions and trade associations, asking that H. R. 5550 not be enacted, but that Congress instead take up G.A.T.T. in light of the treaty-making provisions of the Constitution. The following reasons are listed:

(1) Passage of H.R. 5550 would impair the right of petition and redress guaranteed in our Constitution, since tariff policy and foreign commerce would be made subject to determinations of an international agency.

(2) H. R. 5550 would hinder labor and business from obtaining effective action by the Congress of the United States, as guaranteed by Article I, Section 8 of the Constitution, which declares: "The Congress shall have power to lay and collect taxes, duties, imposts and exercises . . . to regulate commerce with foreign nations, and among the several states. . ."

(3) H. R. 5550 would remove from Congress its full and effective freedom to exercise its Constitutional responsibilities in these fields.

(4) H. R. 5550 would remove tariff and trade policy determinations from the Federal Government and subject them to an international organization in which the people of the United States are not adequately represented and where the United States delegate would have but one of the 35 votes, the same as the Grand Duchy of Luxembourg, Haiti, and other countries with population less than many cities and states in this nation.

Among signers of the petition, which is sponsored by the American Tariff League, are approximately 180 firms in the textile industry. These include producers of wide and narrow fabrics, underwear, hosiery, cordage, thread, yarn, carpet, lace and felt, representing various types of fibers, plus machinery and mill supply manufacturers, converters, commission houses, etc.

Apparently a majority of Congress suspects that G.A.T.T. is an usurpation of legislative authority to control tariffs. A vote for H. R. 5550 is a vote for the continuation of such usurpation. Still, the White House has asked Congress to vote money and authority for the administration of an agency, G.A.T.T., while Congress seemingly opposes the existence of such an agency in the first place.

Administration spokesmen went before the recent meeting of the United States Chamber of Commerce to ask that the Chamber endorse H. R. 5550. This policy declaration was declined on the floor of the meeting, and instead referred to a membership referendum. If it were to pass, it would appear that American business generally favors both G.A.T.T. and the proposed O.T.C.

We hope that textile executives will express themselves to their elected representatives in Washington in regard to H. R. 5550. It appears right now that the Administration is hesitating to bring the bill to a floor vote. It might be a good thing for it to be brought to a vote, because if textile people have any influence at all, Congress will listen and H. R. 5550 will be voted down. Then, it's barely possible that the Administration will begin to wonder if it is headed in the right direction on foreign trade.

The wheels of the textile industry obviously are squeaking, but whether they get any grease remains to be seen. The United States Tariff Commission has declined to enter into an "escape clause" investigation of the effect of imports on the textile industry as a whole. Another Geneva tariff parley has just been concluded; about this the National Association of Hosiery Manufacturers has this to say: "Tariffs on men's woolen socks have been under discussion at Geneva for some time and some decision has been reached. We are not allowed to ask what the decision is nor can we discover what was said on our behalf by our unappointed and unknown advocate at the conference table. We were permitted to ask the Tariff Commission to ask G.A.T.T. not to change the tariff except to raise it, but we don't know whether they did or not."

A minor sigh of relief was breathed by the textile industry when the list of latest tariff cuts made at Geneva was announced. While the new cuts will undoubtedly be a hardship on segments of the industry, they were not of major importance. But don't rest easy; remember the recent

TEXTILE INDUSTRY SCHEDULE

— 1956 —

- Sept. 6-7 (Th-F)—Fall meeting, **THE FIBER SOCIETY**, Warwick Hotel, New York City.
- Sept. 10-15 (M-Sa)—**PERKIN CENTENNIAL** (sponsored by various professional societies and trade associations), Waldorf-Astoria Hotel, New York City.
- Sept. 13-15 (Th-Sa)—National convention, **A.A.T.C.C.**, Waldorf-Astoria Hotel, New York City.
- Sept. 20-21 (Th-F)—Annual outing, **CHATTANOOGA YARN ASSN.**, Look-out Mountain Hotel, Chattanooga, Tenn.
- Sept. 27-28 (Th-F)—Annual meeting, **COMBED YARN SPINNERS ASSN.**, Cavalier Hotel, Virginia Beach, Va.
- Oct. 1-5 (M-F)—19th **SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.
- *Oct. 3-4 (W-Th)—**CHEMICAL FINISHING CONFERENCE** (sponsored by National Cotton Council), Hotel Statler, Washington, D. C.
- Oct. 6 (Sa)—Annual meeting, **PIEDMONT SEC., A.A.T.C.C.**, Charlotte (N. C.) Hotel.
- Oct. 11-12 (Th-F)—Annual meeting, **NORTH CAROLINA TEXTILE MFRS. ASSN.**, The Carolina, Pinehurst, N. C.
- Oct. 13 (Sa)—**TEXTILE OPERATING EXECUTIVES OF GEORGIA**, High-tower Textile Building, Georgia Institute of Technology, Atlanta.
- Oct. 16-19 (Tu-F)—**COMMITTEE D-13 ON TEXTILES, AMERICAN SOCIETY FOR TESTING MATERIALS**, Warwick Hotel, New York City.
- *Oct. 22-26 (M-F)—**NATIONAL SAFETY CONGRESS AND EXPOSITION** (sponsored by National Safety Council), Chicago, Ill.
- Oct. 25-26 (Th-F)—Annual meeting, **CARDED YARN ASSN.**, Hotel Fort Sumter, Charleston, S. C.

- *Nov. 1-2 (Th-F)—**PERSONNEL DIV., S. C. TEXTILE MFRS. ASSN.**, Ocean Forest Hotel, Myrtle Beach, S. C.
- Nov. 27-30 (Tu-F)—**NATIONAL CHEMICAL EXPOSITION** (under auspices of American Chemical Society), Cleveland (Ohio) Public Auditorium.
- Dec. 1 (Sa)—**SOUTH CENTRAL SEC., A.A.T.C.C.**, Hotel Patten, Chattanooga, Tenn.
- Dec. 4-5 (Tu-W)—Conference, **COATED FABRICS DIV., SOCIETY OF THE PLASTICS INDUSTRY**, Hotel Commodore, New York City.
- Dec. 8 (Sa)—**SOUTHEASTERN SEC., A.A.T.C.C.**, Atlanta, Ga.

— 1957 —

- Jan. 28-29 (M-Tu)—Annual meeting, **NATIONAL COTTON COUNCIL OF AMERICA**, St. Louis, Mo.
- *Feb. 27-Mar. 1 (W-F)—**COTTON RESEARCH CLINIC** (sponsored by National Cotton Council), General Oglethorpe Hotel, Savannah, Ga.
- Apr. 4-6 (Th-Sa)—Annual convention, **AMERICAN COTTON MFRS. INSTITUTE**, Palm Beach Biltmore Hotel, Palm Beach, Fla.
- *Apr. 9-11 (Tu-Th)—**NATIONAL PACKAGING CONFERENCE AND EXPOSITION** (sponsored by American Management Assn.), International Amphitheatre, Chicago, Ill.
- *May 1-2 (W-Th)—Spring meeting, **THE FIBER SOCIETY**, Clemson House, Clemson, S. C.
- †Fall—National convention, **AMERICAN ASSN. OF TEXTILE CHEMISTS & COLORISTS**, Boston, Mass.

— 1958 —

- *Apr. 10-12 (Th-Sa)—Annual convention, **AMERICAN COTTON MFRS. INSTITUTE**, Hollywood Beach Hotel, Hollywood, Fla.

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday; (Su) Sunday

*Listed for the first time this month.

†Tentative listing.

‡Changed or corrected from previous issue.

EDITORIALS

statements of Administration officials. Someone from the Tariff Commission says that Japanese imports "are not offering serious competition to most segments of the domestic textile industry." Another official flippantly says that "too many industries are trying to wrap themselves in the American flag" when citing their essentiality to national defense." The State Department pretends to be arranging some kind of conference with the Japanese Government on a negotiated textile agreement, but no one in Japan seems to have been contacted. President Eisenhower himself, before his operation, criticized the section of the 1956 farm bill authorizing him to negotiate import quotas on textiles.

Meanwhile, Japanese textile competition is beginning to bite into the wage envelopes of thousands of textile mill employees of the South. Curtailment of operations has been announced by several mills and all have blamed increasing imports of Japanese cloth and apparel.

Miss Porter Got The Headlines, But Did She Get The Facts?

Apparently with somewhat more self-righteousness than careful and realistic appraisal of the available facts, some Eastern publications known for their anti-Southern inclinations—and more recently, Sylvia Porter, the syndicated financial writer—have been implying and suggesting that

racial difficulties will materially reduce the industrial development of the South.

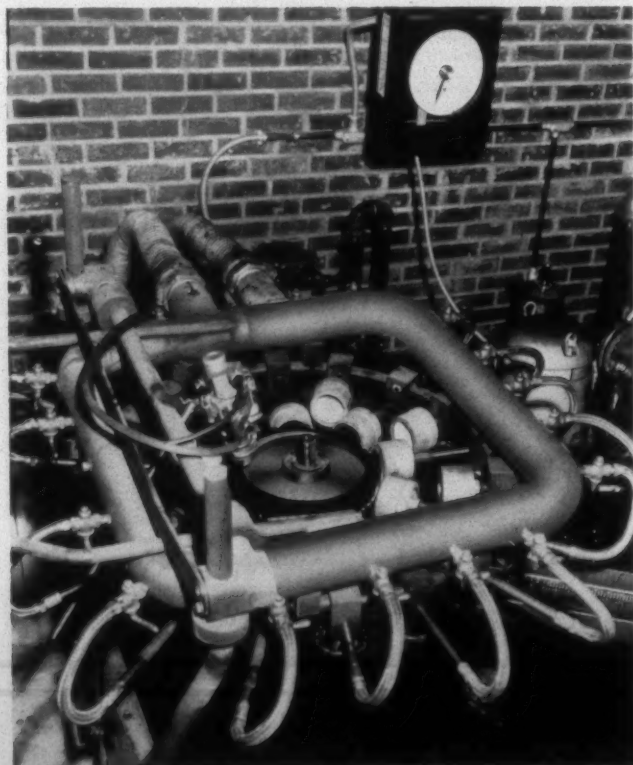
Naturally such published reports or inferences have started a lot of rumors, which are utterly without any foundation. However, key people in Southern industrial development promotion and plant site selection, who are in position to know the real facts in the situation, both as of the moment and in the longer range, seem unanimous that there is little or nothing to support Miss Porter's view.

H. McKinley Conway Jr., director of the South's top-level planning and development agency, the Southern Association of Science and Industry, remarks: "Miss Porter's column started a lot of rumors, but as yet we have not been able to find a single confirmed case of a plant location project deferred or adversely affected by the possibility of segregation difficulties. . . . Moreover, it is clear that plant location activity in the South today is at an all-time high . . . and key Southern developers are confident that the region's many attractions for industry will continue to promote expansion in the years ahead."

As H. V. Allen Jr., director of the Mississippi Agricultural and Industrial Board, puts it, "We believe the purchasing power of an expanding Southern market, the availability of major physical resources including water, and the productiveness and enthusiasm of Southern manpower are too firmly fixed in the minds of industrialists to allow the controversy on segregation to interfere with the continued industrial growth of the area."

Even Mr. Conway, of course, readily concedes that Southern development can, under certain circumstances which

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are not apparent on the horizon, be adversely affected. But he makes the point that "it is clear that if plant location factors are viewed in proper perspective the South will continue to enjoy a favorable competitive position. As of now, certainly, a typical comment from the development board officials is that the segregation issue seldom comes up for even a brief discussion. As R. M. Cooper, director of the South Carolina Development Board for many years, puts it, "we have never had an inquiry which even referred to the matter."

It is indeed worth noting that the South had over 75,000 industrial firms producing \$62,000,000,000 worth of goods in 1955. This compares to \$55,000,000,000 in 1954, the "Blue Book of Southern Progress" reports. Southern growth was attributed by one executive to: (1) expanding markets; (2) good manpower; (3) raw materials and water; (4) excellent transportation; (5) friendly government and (6) strengthening financial resources.

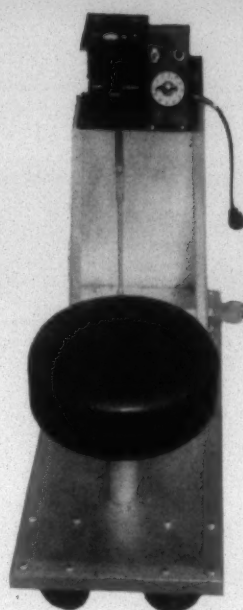
Miss Porter's whole assumption and conclusion seems to have been based on a statement by an official of a New York plant site locating firm to the effect that at least 20 corporation moving projects on which it is currently working are being seriously reconsidered in the light of the situation in the South. This official is quoted as saying, in fact, that there is a definite diminution of industry's desire to move South, and while conceding maybe the situation is temporary, adding that unless the South resolves its problem "it'll be more than temporary." Miss Porter mentions industrialists having had to change their minds about moving South because of such factors as engineers and technical personnel objecting to moving their families into areas torn by such racial turmoil.

At the same time, however, she remarked about the growing awareness of the problem on the part of business leadership in Charlotte and the city's calm approach to the whole racial problem and took the view that a growing awareness of the problem by Southern business and industry could go far toward halting the incipient trend right in its tracks.

The fact of the matter is that the upward thrusts of a minority race coincide with the South's high noon of transition from a predominantly rural, agricultural economy to one which is balanced with industry—a change that in itself involves adjustments both immense and complex. The Southern industrial revolution since World War II has been profound.

To fit the statistics into a simple picture, for every work day in recent years a multi-million dollar industrial plant has gone up somewhere in the South. This doesn't include the countless new plants involving a smaller yet still substantial investment. There is certainly no outward evidence of a diminution in the trend. A Southerner right now can pick up his newspaper almost any day and note the announcement of plans to build somewhere in the region a plant involving a few million dollars or maybe as much as \$60 million.

So it is small wonder that any insinuations, however motivated, to the effect the South's bright future in industrial development is being dimmed or muddled by racial tensions and that some national corporations may be taking a second look before deciding to expand in and move to the Southeast are met with such retorts as "hogwash" and "anti-South propaganda" and "grasping at a straw to try to discredit the South and halt the migration of industry."



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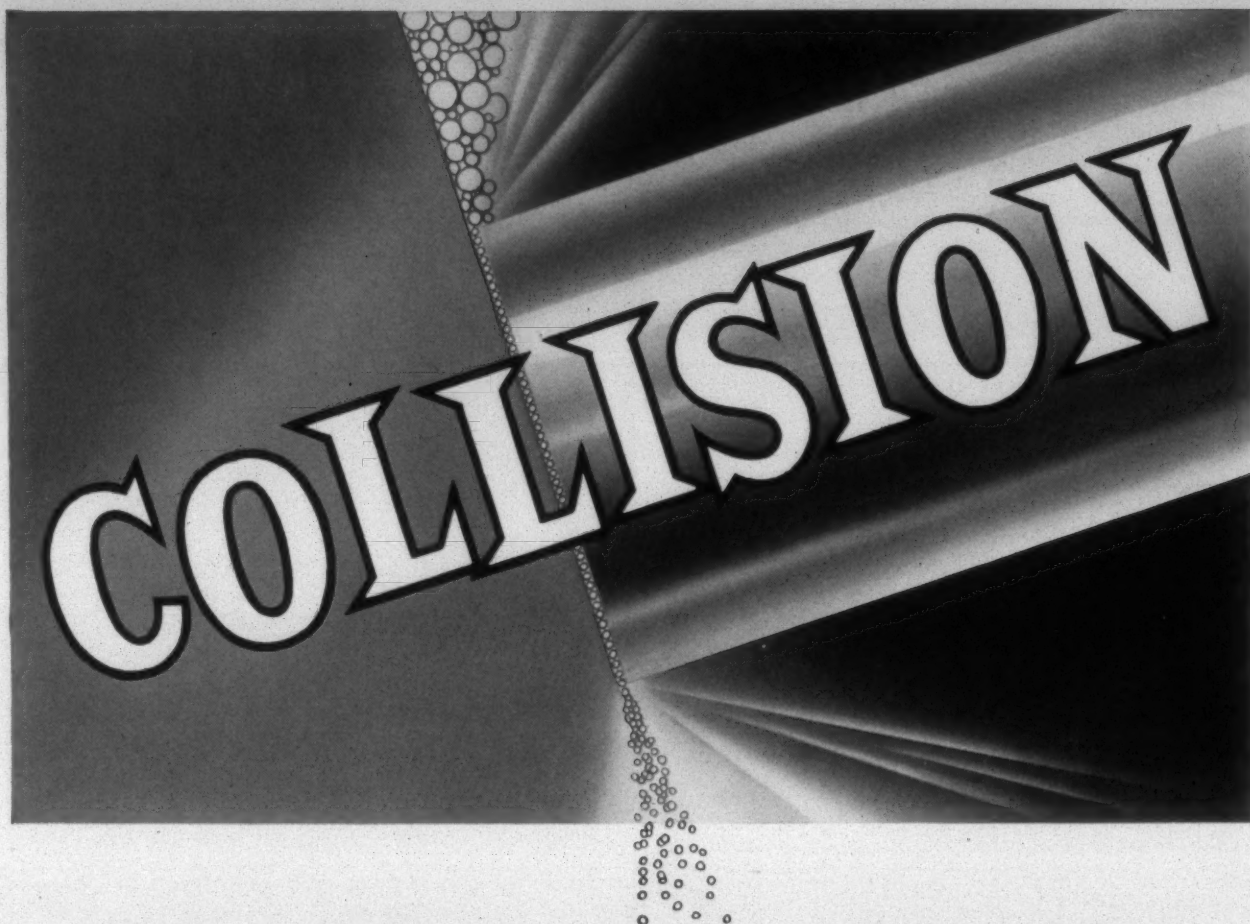
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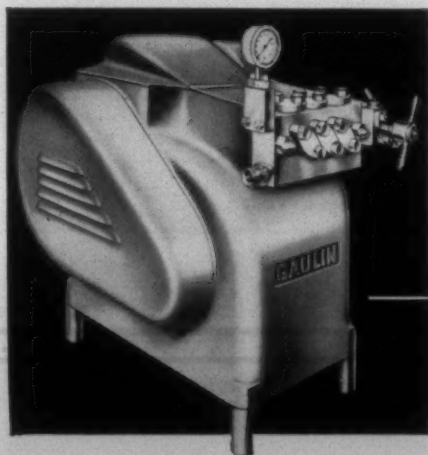
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How Do

Japanese Textile Imports

Affect You?

The Worker . . . The Stockholder . . . The Public

By J. C. COWAN JR., Vice-Chairman, Burlington Industries Inc., Greensboro, N. C.

DESPITE all the attention the tariff situation has received, no one group could possibly be more concerned with it than those of you who run plants and supervise the thousands of employees who depend on the textile industry for their living.

The alarmingly increased competition from Japanese imported textiles affects in a very serious way the welfare of three groups:

(1) First, the thousands of textile workers who man our plants, and the foremen, managers, executives, all of whom, together with their families, depend upon the textile industry for their income and for the standards of living which we enjoy.

(2) A second group affected is the stockholders, whose investments in our textile companies make possible the buildings, machinery and other tools with which we work.

(3) A third group is the public, particularly in the states where textiles is the predominant industry. Money spent by the textile industry for payrolls, raw materials, machinery, supplies and services furnishes the life blood for local business, and is a source of tax revenue which carries the burden of our local and state governments.

Make no mistake about it—the future of our industry is going to be tremendously affected by what is done, or what is *not* done, about this matter of the tariff.

Our problem became serious last September, when substantially reduced tariffs on cotton textile imports from Japan went into effect. Tariffs, as you know, are the historic duties which countries place on goods coming in from other nations, in order to protect the industries of their own country from unreasonable competition.

Our government is committed to a policy of helping Japan become economically self-sustaining. This is necessary to keep Japan out of the Communist camp, and is vital to our own defense. No one can argue with this objective. Our concern is that our textile industry not be sacrificed in achieving this objective.

The new and much lower tariffs on Japanese cotton textile goods, after being in effect for eight months, have already resulted in astounding increases in shipments to America. The reduction of duties on some items amounted to about 50 per cent, and the growing flood of fabrics and

finished items of apparel is reflected on the counters of department stores and specialty shops in every community.

And we have to remember that Congress has given the President authority to further reduce tariffs which have already been negotiated by five per cent per year for three years.

Of course other industries are affected by these lowered tariffs, but none to the extent that the textile industry has been hit. Some 90 per cent of the items produced by the cotton textile industry are involved—a percentage far greater than that of any other industry. To our way of thinking, textiles have been made the "goat," and we are not going to stand idly by while the goat is led to slaughter.

Now, tariffs are a very complicated thing, and the nature of the tariff structure does not make it easy to quote an average reduction for all goods. However, there are many specific examples which will give you some idea of how drastic the reductions have been, and how tremendously the quantities of Japanese goods shipped into America have increased in only one year.

Perhaps the most notable example is velveteen, which shows dramatically how ruinous imports already are. Last



Who feels the impact of the increased competition from Japanese imported textiles? In answering this question before the Spring meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association,

J. C. Cowan Jr., vice-chairman of the board, Burlington Industries, Greensboro, N. C., pointed out that the production worker, the stockholder and the consumer are all affected in a serious way. The meeting, conducted by Charles H. Ward of Highland Cotton Mills, High Point, N. C., chairman of the S.T.A. division, was held May 7 at High Point.

year Japanese competition in this segment of our industry captured 70 per cent of the American market, and completely demoralized the price structure in the remaining 30 per cent of the market. When our American velveteen mills asked the Tariff Commission for relief, in January, they were told to come back in June and their case would be heard.

Another serious inroad has been in blouses. Last year the Japanese brought over 36 million blouses into the United States—over one-third of all the blouses sold here. The market was hard hit by this low-priced competition. Now blouse manufacturers are our customers and your customers, and we who produce cloth are hurt just as badly as if the cloth from which the blouses are made had been imported. Again, the companies which make American blouses went to the Tariff Commission, and they too were told to come back later.

The tariff on cotton cloth in the greige was reduced by about 27 per cent. On Japanese cloth similar to our 80 square, 4.00 yard print cloth (the most important single item in U. S. production), this tariff cut alone is equal to *two times the profit per yard* of the average greige goods sales mill in 1954 (latest year data available).

And on most of the bleached, printed, dyed and colored cloths the tariff was cut by 48 per cent. In gingham, it is estimated that the Japanese have already cut into about 30 per cent of the American market, and imports are increasing monthly.

A Modern Nipponese Industry

We who are working in the textile industry take great pride in the efficiency of our plants and the quality of the fabrics that we produce. Most of us think of the Japanese textile industry in pre-war terms when much of its equipment was obsolete, its product was inferior, and its technical know-how was far below American standards. Revolutionary changes have taken place in the Japanese textile industry since the second World War. Their textile plants, which were bombed out during the war, have been replaced with modern buildings and machinery. Through exchange of visits and technical aid furnished Japan by our country, they have our latest methods and most up-to-date technical know-how. While they lack originality in creating new fabrics and styles, they are notorious for their ability to copy and duplicate. The fabrics and garments that are being shipped into this country by Japan are of a good quality, and with a lower tariff they can land them in this country at prices well below our cost of producing.

In light of the above, it is easy to understand how the Japanese textile industry, with a wage scale one-tenth of the wage scale for our textile industry, can undersell the American producer and gradually take over our markets unless we have tariff protection that takes into account the low Japanese wage scale. In American textile plants the average wage scale is around \$1.35 an hour. In the Japanese textile plants the workers are paid approximately 13½ cents an hour. *The American textile industry doesn't want to be subsidized.* All it wants is tariff protection that will tend to equalize the vast difference in wage scales. This is most important if the American textile industry is to continue its present level of wages on which our employees depend to maintain their standard of living today.

Earlier I mentioned that this problem of Japanese imported textiles seriously affects the welfare of three groups.

Directly and indirectly, the group that is most seriously and immediately affected is those of us who manage textile plants and our thousands of employees who depend upon the mills for their livelihood. Let's look a little more closely at just how these Japanese imports do affect us:

Our Employees—While we recognize that our textile wages are low when compared with those paid by automobile and other of the more prosperous industries, the rate of increase for textile workers' earnings has kept pace with the increase that has taken place in industry generally. Textile wages today are approximately three times what they were at the beginning of the second World War. During this period it is interesting to note that the cost of living has about doubled. We can therefore see that with wages three times as high and the cost of living only doubled, our textile workers today are able to enjoy a much higher living standard than was previously possible.

If the textile industry is to maintain its present level of wages, it must be protected against destructive competition that is made possible by the extremely low wages and inferior living standards of the Japanese worker. The competition we are receiving today from Japan not only affects the industry's ability to make further wage increases, but, if something isn't done about it, it will eventually undermine the textile industry's ability to maintain present levels of wages.

Stockholders—The textile plants in which we work have been made possible by the money that has been invested by the stockholders of our various companies. If our jobs are to be secure, our plants must make a profit and pay to the stockholder a fair return on his investment. Unless there are profits, there will not be money to replace obsolete equipment and to keep our plants modern; and unless the profits are sufficient to pay the stockholder a fair return on his investment, he will not invest additional capital to buy new equipment, to enlarge existing plants, or to build new plants which make available additional jobs for textile workers.

The Profit Picture

As most of us know, under normal conditions the textile industry is a highly competitive business. For the past several years the net profits on sales have averaged well under five per cent. This compares with a net profit of about double this for industries such as automobiles, chemicals, steel, and the other more profitable industries. From this comparison we can see what a highly competitive and low profit business we are in.

With these low profits having existed before the Japanese threat, it is easy to understand how this added competition from Japanese imports is threatening in a very serious way the future of our industry. All of our jobs are being jeopardized.

The Public—The third group affected is the public. The American textile industry, if you include the garment manufacturing industry, rates as the largest employer in the United States. The two industries combined rank third among major industry groups in value of output. The textile industry alone employs some 2¼ million people, which represents 14 per cent of the total employment in all manufacturing enterprises.

In addition to the direct jobs and payrolls made possible by the textile industry, the textile mills of our country are spending millions of dollars each year for cotton, wool,

and other raw materials, which go to the cotton farmers and the wool growers of our country. Millions of dollars each year are also spent for machinery and supplies upon which many companies, large and small, depend for their continued existence. When you combine the annual expenditures of textile mills for payrolls, raw materials, machinery, supplies, and services, it means untold millions of dollars that furnish the life-blood of our economic system.

The textile mills of our country also bear a large share of the tax burden for our national, state, and local governments. These taxes go for national defense, health and welfare purposes, schools, roads, and many other things too numerous to mention that affect the daily lives and welfare of our people.

As you readily see, the public, which includes all of us, has a direct stake in this matter of Japanese imports that affect so seriously the well-being of the textile industry which is one of the important manufacturing enterprises of our country.

What Are We Doing About it? As it now stands, relief from this problem of Japanese imports must come from Washington and is largely in the hands of Congress, which makes the ground rules in such matters. While Congress seems slow to move and take corrective action, we have

confidence in our democratic processes of government that once the members of Congress are impressed with the real seriousness of this situation, they will take action before the textile industry is sacrificed upon the altar of Japanese imports.

Our problem is to get across to the folks in Washington the facts and show them the seriousness of the situation.

Taking the lead in this are the American Cotton Manufacturers Institute and other trade associations who represent the industry. Various textile leaders are spending time in Washington, appearing before the Congressional hearings and talking with various Senators and Congressmen and administration leaders.

We, too, can do our part in making the facts known. Each one of us has a self-interest and a responsibility to grasp every occasion to explain our problem to our employees and our friends and neighbors. We should encourage as many people as possible to contact personally or through the mails our representatives in Congress, impressing upon them the seriousness of this situation that faces our industry and encouraging them to get busy and do something about it.

What we need in the weeks ahead is an aroused public awareness of what we in the American textile industry consider to be a clear and present danger.



One of the features of the Spring meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association was a display of automatic lint collecting devices. Clockwise from top left are pictured American Monorail Co., Bahmson Co., Pneumafil Corp. and Parks Cramer Co.-SpinSaVac Corp. discussion groups.

The Merger Trend Continues

—A Staff Report—

THE pattern of mergers and liquidations which has beset the entire American business and industrial economy in the last two years continues to affect sharply the textile industry, which unlike most big business or big industry, is made up of literally thousands of individual plants or units, and the trend seems to be met with increasing acceptance or resignation.

The accelerating tempo is again brought into sharp focus by directors of Dan River Mills at Danville, Va., formally approving the acquisition of three textile corporations whose annual sales run to \$160,000,000 and which involves 14 manufacturers and a finance corporation. Dan River itself had net sales in 1955 of more than \$90,000,000. Pronounced or marked as is the merger or consolidation trend, however, the industry is far from being dominated by a few big operations, as is the case with other segments of the industrial economy.

Yet there is no one at the moment who can say for how long the present pattern may continue, or where, how and when it will end. During 1954, more than 80 mergers or similar deals were consummated in the textile and allied industries, exclusive of the garment cutting trade, according to compilations from trade sources, and in 1955 such transactions almost tripled in number, with a small percentage of the total consisting actually of liquidations.

Back of these mergers has been the recognized need for more and more integration in order to meet the hard competition in today's textile markets. The thinking which has led to these large-scale integrations is that the mill organization with the most diversified lines is the most flexible under changing market conditions.

Bur-Mil on the Move

Most spectacular textile merger history in the last two years has been made by Burlington Mills Corp., which took over Pacific Mills and Goodall-Sanford Inc., in 1954, and last year became officially Burlington Industries Inc., a new designation to cover the parent company and also affiliated and subsidiary operations, most of them comprising acquisitions of previous years.

Soon thereafter, Burlington divested itself of the Palm Beach Co., garment manufacturing subsidiary of Goodall-Sanford. Palm Beach was sold to interests headed by Elmer L. Ward, former president of both Palm Beach and Goodall-Sanford. The former Goodall-Sanford plant properties at Sanford, Me., were disposed of to North Star Woolen Mill Co. of Ohio.

Subsequently, Burlington bought Hafner Associates Inc., of Long Island City, N. Y., high-style upholstery and drapery fabrics producers, to add to the Burlington Decorative Fabrics Division. Hafner Associates of Canada Ltd., which was included in the purchase, was sold back to its Canadian general manager. Also Burlington acquired the Mooresville Mills of North Carolina from J. W. Abernethy and Associates. Mooresville Mills produces apparel and drapery fabrics, towels, and single and plied combed yarns.

Still later, Burlington acquired holdings of Ely & Walker of St. Louis and a potential added annual sales volume of more than \$100,000,000. And with control of Ely and Walker, Burlington brought into its fold Ely and Walker's six textile plants (Calhoun Mills, Calhoun Falls, S. C.; F. W. Poe Mfg. Co., Greenville, S. C.; Hart Cotton Mills, Tarboro, N. C.; Carolinian Mills, High Shoals, N. C.; Post Cotton Mills and Sherman Mfg. Co., both in Texas); 76 per cent interest in Southern Bleachery & Print Works, Taylor, S. C.; and control of Clinchfield Mfg. Co., Marion, N. C.

As had been the case in the Goodall-Sanford garment operation, Burlington then divested itself of parts of the Ely & Walker system remote from the textile base, including interests in Woodward and C. R. Anthony retail store chains.

Dan River

In the big Dan River Mills deal, the mills to be absorbed include the Woodside group of South Carolina and the Alabama Mills, and also the stock interests of the Iselin-Jefferson Corp., a sales agent for many Southern textile mills.

A spokesman for the company said later that when negotiations are concluded, the acquisition of Iselin-Jefferson and Alabama Mills by Dan River probably will be effected by an exchange of stock but the terms will not be made known until the stockholders are informed of the special meeting to ratify the directors' action.

The company statement said that the Iselin-Jefferson Corp. and its two subsidiaries, the Iselin-Jefferson Finance Co. and the Woodside Mills would continue to operate as separate entities and that the Alabama Mills would be also run as a separate organization.

Woodside Mills operate plants at Greenville, Easley, Fountain Inn, Anderson, Simpsonville and Liberty, S. C. Alabama Mills operate in Aliceville, Fayette, Winfield, Clanton, Wetumka, Ala., and Rome, Ga.

Lowenstein has been another big textile operation involved in large acquisitions in the last few years. In 1954 it purchased Wamsutta Mills and late in 1955 acquired from Burlington the entire cotton division of Pacific, consisting of three mills in Columbia, S. C., and the sheet mill and finishing plant at Lyman, S. C. A little prior to this, it bought the Spofford Mills at Wilmington, N. C., and Covington Mills Inc., in Georgia.

J. P. Stevens & Co. Inc., has also been prominent in the integration movement. In 1954 it obtained working of the John P. Maguire & Co. factoring firm; and also of Robbins Mills Inc., only to sell its Robbins stock within three months to Textron Inc., which later absorbed both Robbins and American Woolen Co. Other Stevens acquisitions, however, involved Cheney Brothers, Manchester, Conn., and financial control over D. B. Fuller & Co. Inc., leading New York converting firm, and Fuller's dyeing and finishing subsidiary, Hampton Mills, in Massachusetts.

Early this year Stevens acquired Worumbo Mfg. Co., Lisbon Falls, Me., high-style woolen manufacturers, and all the textile operations of the Simmons Co. at Roanoke Rapids, N. C., famous for its bedding products. Stevens a little later divested itself of Simtex Mills, the Simmons men's and boys' shirt manufacturing operation.

Textron Inc., has loomed large in the textile merger pictures. Its big deal was absorption of American Woolen and Robbins Mills in 1955 and Amerotron Corp. was set up as a division to conduct all Textron's operations. Textron built a tremendous new woolen plant at Barnwell, S. C., but otherwise has been contracting its textile operations. Just this month Amerotron announced that it was selling the Raeford (N. C.) Mill and Clarksville (Va.) Finishing Plant to Pacific Mills, a member of Burlington Industries.

The 'Why' of Merging

Many factors are attributed to spurring the trend toward textile amalgamations. One, of course, is the wider utilization of man-made fibers with the variety of complications that are involved in their proper applications. Involved, too, is the development of more modern methods of styling and merchandising. Consolidations have helped make available greater sums to use in more effective advertising and promotion, as well as research.

Diversification of operations into major fields apparently is becoming regarded as essential to the well-being of a large company in a highly competitive period. Other motivating factors usually cited are strong brand names, experienced executive and sales personnel. Assets not reflected directly in the balance sheets are very valuable portions of acquisitions in today's highly competitive markets. There are many economies and improvements possible over a period of time through joint effort in effective utilization of facilities.

Textile consumption for all purposes, from dresses to tire cords, now averages 40 pounds per person per year in America. That's up ten pounds in 30 years. But the industry says it should go to 50 pounds to take up the slack in the present over-capacity to product. Styling, good merchandising and sales effort to create consumer demand will do it, many believe.

Back of the whole merger fever have been major shifts in the textile business since the war. One is a change from privately-held to publicly-owned companies. Another is the shift of the mills to the South. A third is the rash of competing man-made fibers.

Unusual post-war demand sent the companies pell-mell into production. Many kept up the pace even after consumer demand drifted away from re-stocking soft goods necessities to buying appliances and services with their discretionary dollars—that money left after spending the minimum for food, clothing and shelter.

Clothing standards changed too, to informality and casual styles. Accent on outdoor living puts people into jeans and slacks. Even television, as usual, gets some of the blame. People took to staying at home in their old clothes instead of going out for the evening in more formal and stylish attire.

The increasing strength and diversification of the American economy is one factor impelling this change in textiles. Exerting power in a contrary direction at the same time is the still intensifying economic handicap which this



TEXTILE EDUCATION AND MACHINERY DAY, was celebrated last month at Lowell (Mass.) Technological Institute. Participating in the event were (left to right): Harold V. Farnsworth, trustee, Lowell Technological Institute; Mildred B. Andrews, executive secretary, American Textile Machinery Association; Walter B. French, trustee, L.T.I.; Samuel Pinanski, chairman of board of trustees, L.T.I.; Earl P. Stevenson, chairman of board, A. D. Little Co., and speaker at the dinner session; Dr. Martin J. Lydon, president of L.T.I.; W. Frank Lowell, president, American Textile Machinery Association; James H. Hunter, vice-president, A.T.M.A.; Harold W. Leitch, trustee, L.T.I.; and F. Gorham Brigham, assistant to the president, A.T.M.A.

American industry is encountering in its export markets all over the world. Still another force for textile change—and progress in many directions—is being sustained by the scientific advances fostered by research, especially in textile chemistry, and by new, more efficient machinery.

These economic and scientific advances are coming in this post-war period of readjustment at a time when the American public wants, and possesses the money to buy, higher qualities of textile products. Thus broad opportunities for improving qualities and diversifying products are presented to textile management men.

All this adds up to the fact that a steady increase is being required in the already great aggregate of working capital to sustain textile production and marketing.

The differences between "vertical" and "horizontal" integration seem to be mostly technical. In effect, these integrations mean greater concentrations of textile invested capital under a lesser number of centralized managements. The fact that these integrations are accomplished by veteran managements shows conclusively the opportunities presented for earnings are enticing while the accompanying problems are accepted realistically.

At any rate, monopoly in textiles as a result of recent mergers seems remote. Hundreds of small and medium-size mills and a dozen large companies split an annual volume estimated at \$20,000,000,000 and \$25,000,000,000. Burlington Mills, a giant, although it has been very active in mergers, accounts for only about two per cent of this.

The mergers are either to put money-losing companies on a better competitive footing or to make profitable companies stronger for further rough times ahead. But few textile men believe that in bigness alone there is strength. The industry is hampered by too many other problems, such as overproduction, imports and labor troubles.

South Carolina Mill Men Discuss Japanese Imports, Compulsory Unionism

SOUTH Carolina's textile executives considered labor and Japanese import problems at the annual convention of the South Carolina Textile Manufacturers Association at Sea Island, Ga., May 31-June 2. In the annual president's report, F. E. Grier of Greenwood, S. C., said things were better than a year ago, but reminded the mill men that profits of the industry, although better than in 1954, still were far below the average for all U. S. industry. With Japanese imports increasing sharply during the early months of 1955, he asserted that the long-range outlook for the industry was "alarming."

Making his customary report as guest of the association, Robert C. Jackson of Washington, D. C., executive vice-president of the American Cotton Manufacturers Institute, reiterated that import quotas by legislation appeared to be the only recourse of the textile industry in its fight for relief from increasing Japanese imports. Mr. Jackson also pointed out that the recent report of the Tariff Commission that it could not undertake a detailed study of the inflow of goods from abroad was "an indication of Government helplessness in curbing unrestricted imports."

Three speakers at the convention dealt with labor matters. Hugh Chatham, president of Chatham Mfg. Co., of Elkin, N. C., and Roger Milliken of Spartanburg, S. C., president of Deering, Milliken Co. Inc., made off-the-record reports. Speaking out boldly against "compulsory unionism," former U. S. Senator Charles E. Daniel of Greenville, S. C., chairman of the board of Daniel Construction Co., declared that "The 'right-to-work' laws of 18 states and a provision of the Taft-Hartley Act permitting the enforcement of these laws represent the only legal barrier to full compulsory unionism."



H. B. Carlisle

At the closing session on Saturday, June 2, Howard B. Carlisle Jr. of Lyman, S. C., personnel director of Lyman Mills Inc., and long active in state legislative matters, was elected president, succeeding Mr. Grier, who is president of The Abney Mills and of Toxaway Mills and chairman of the board of Erwin Mills. Mr. Carlisle moved from vice-president to president of the association.

Elected vice-president was Alan B. Sibley of Greenville, S. C., an official of Deering, Milliken. Re-elected directors were Stanley W. Converse of Spartanburg, Walter S. Montgomery of Spartanburg and Col. Elliott Springs of Lancaster. The report of the nominating committee was submitted by J. B. Harris of Greenwood, S. C., chairman. Directors later re-elected John K. Cauthen executive vice-president and Miss Julia Kennerly, secretary.

Trustees of the J. E. Sirrine Textile Foundation, meeting June 1, re-elected as officers George M. Wright of Abbeville, S. C., president; C. B. Hayes of Spartanburg, vice-president, and John K. Cauthen, secretary and treasurer. Members of the foundation earlier had elected as trustees

Fred B. Dent of Spartanburg, W. H. Beattie of Greenville and Mr. Wright, with George P. McClenaghan of Greenville replacing the late R. E. Henry of Greenville.

Dr. Hugh M. Brown, dean of the textile school of Clemson College, gave a report on work in the textile school, reviewed prospects for the coming session and expressed appreciation to the foundation for aid given Clemson. "The demand for textile graduates," Dr. Brown said, "is exceeding many-fold the number we can supply. Some of the other schools have advertised that they could have placed eight-fold more men than available and I believe that the demand for Clemson graduates ranks up with that for any other school." Dean Brown also told the trustees that the Clemson Textile School had issued a brochure designed to acquaint high school graduates with the advantages of textile education.

Announcement was made at the final session of the convention on Saturday that Mr. Grier, who also is president of the American Cotton Manufacturers Institute, would leave by plane the following day for Munich, Germany, to attend the meeting of the International Association of Textile and Allied Industries the week of June 4-9. Mr. Grier represented the American textile industry at the conference.

In his report at the opening session, Mr. Grier told the mill men, "The uncertainty created by the ever-worsening situation in respect to imports from Japan has been a depressant to the whole U. S. cotton textile structure and has created a condition which naturally inhibits forward planning and handicaps the mills in financing further modernization." He noted that the South Carolina Textile Manufacturers Association had no part whatsoever in the action of the South Carolina Legislature directing retail establishments which sell Japanese textile goods to display conspicuously a placard informing customers of the fact, and that the association time and again had made abundantly plain its hands-off policy. The president remarked, however, that the subsequent sharp criticism and controversy which the legislative action aroused in other parts of the nation nevertheless had tended to focus attention on the plight of the textile industry and the threat of economic catastrophe to areas such as South Carolina where the industry furnishes 75 per cent of all manufacturing employment and 80 per cent of all industrial wages paid in the state.

"U. S. mills desperately need to know just how much they are to be expected to sacrifice for Japan's welfare and in the interest of aid to our allies," Mr. Grier asserted. "Then American cotton farmers and mill people alike would have some idea of the size and potentials of the markets it is possible to develop."

In his address to the textile manufacturers, former Senator Daniel termed compulsory unionism with its accompanying socialist labor government, which is now developing, as America's greatest menace. "I do not think I am being too alarming," Mr. Daniel said, "when I say that unless we eliminate this threat to the basic elements of American freedom, our constitutional rights will be

further whittled away through a probable drastic change in our form of government. All business will be seriously and adversely affected. We will find destroyed two of the fundamental principles of American constitutional law that presently guarantee the most precious liberties man possesses—the right to work and the right of association.”

The speaker asserted his belief “in the dignity of labor, whether with head or hand. I believe that the world owes no man a living, but that it owes every man an opportunity to make a living. . . . I recognize the right of men and women to join a union and am willing to fight with them to maintain that privilege. I believe equally in the right not to join, for without this right there is no such thing as a right to join, and membership becomes servitude.”

He termed “left wing radical leaders of the labor unions” as the “greatest enemy of the American way of life. We have just witnessed the formation of the greatest monopoly and the outline of the greatest power grab in the history of our nation . . . in the merger of the A.F.L. and C.I.O. into an organization of approximately 15 million members, which represents less than 25 per cent of our employed people. A substantial part of the members are there only through

coercion and compulsion, but its power is enormous and its formation represents a startlingly dangerous trend for the future well-being of all workers and for the welfare of our nation as a whole. Compulsory unionism inevitably destroys the fundamental rights of individuals.”

He referred to the “most recent alarming act of our courts in their decision to the effect that every employee of a railroad would be forced to join a union and pay compulsory dues. This un-American decision, together with many others within recent months, emphasizes to our people that here in this critical period we are burdened with a Supreme Court of federal-minded New Dealists who are woefully insensitive to the rights, the dignity, the prerogatives of the states and of individuals—insensitive indeed to those things which made this a great and strong nation. The object of the merged A.F.L.-C.I.O. is power, and the power increases each time the employees of a plant are forced into compulsory unionism. Its leaders seek ultimately to make the Democratic Party the American counterpart of the British Labor Party.” Then he told the manufacturers: “Let me emphasize one thing to each of you, if you don’t oppose it, you accept it.”

Members of the Piedmont Division, Southern Textile Association, Evaluate Some Recent Machinery Improvements

One of the highlights of the Spring meeting of the Piedmont Division of the Southern Textile Association, held Saturday, May 5, at the Hotel Hickory, Hickory, N. C., was a panel discussion on recent machinery improvements. Topics included in the forum were winders, loom blowers, roving frames, metallic card clothing, drawing-in machines and spinning blowers. Members of the panel reported their experiences with this equipment in the mill.

Chairman: The subject of our panel discussion is recent machinery improvements and how they are working out in the mill. I’d like to start the discussion with Mr. Brackett. I understand, Mr. Brackett, that you have installed some Schlafhorst Autocopser winders. Will you give us some information on that?

Mr. Brackett: We are a fancy dress-goods operation and have some problems peculiar to our plant. We have five different yarns, with 120 different colors. So we have 600 yarns, with the average of those being 25 per day. So we needed quillers, and we looked at quite a few before we decided on this Schlafhorst winder. It is a foreign machine. It is made in Germany and is sold through The Terrell Machine Co., in Charlotte. Before we bought ours they had approximately 2,000 spindles in this country, so it was a proven machine, and we are very proud of the results we have had with it.

Chairman: Can you tell us something about the cost and about the production?

Mr. Brackett: The machine costs about \$500 a spindle installed; and on our particular operation, running 35s to 40s filling, one spindle will furnish filling for three looms.

Mr. Stutts: If you had just one or two types of filling, would that have an advantage over other types of quillers on a stream-line basis?

Mr. Brackett: Yes, I think it would, because we have had very excellent results so far as the cost per pound is concerned. I would say that less changing would make the machine more desirable. We

have 108 spindles on this machine; and to have say two or three spindles on one color would be nice. But if the whole thing were on one yarn there would be less of a problem. It has come out pretty well.

Mr. Estes: Have you any idea of the number of yards per hour?

Mr. Brackett: No.

Mr. Stutts: I understand that in European machinery all the screws and bolts and the threading are different from ours. Do you have any difficulty with that?

Mr. Brackett: No, that’s a question we considered probably as much as any other one. Up to this time we did not have any foreign-made machinery in our plant; and I think probably the reason we bought this machine was that The Terrell Machine Co. in Charlotte, with whom all of you are familiar, had taken on this machine and showed us that we would have no problem with maintenance. As a matter of fact, they have microfilm plans or drawings of every screw in the machine, so if this powder keg blows up some day they can repair it right there in Charlotte. You are all familiar with Terrell and know they can make down to the smallest screws.

Chairman: Can you tell us what savings you have had by changing to this machine?

Mr. Brackett: Here again it sounds like we’re selling winders, and I don’t want to leave that impression at all. I’m always reluctant to compare one manufacturer’s machine with another’s. In our plant we had the Barber-Colman automatic quiller, with which some of you may be familiar. This machine showed on paper a return of about a year-and-a-half over the one we had. Frankly, since we have had it in operation—somewhat over four months now—it is a little better than that.

Mr. A: In other words, if you went out and bought this machine the savings would pay for it in a year and a half?

Mr. Brackett: Yes.

Chairman: What are some of the other changes?

Mr. Brackett: The winder we had was a 30-spindle unit, and if one spindle stopped all stopped. On this one that isn’t the case. If we had a half bobbin we had a half bobbin, and then we had a piece to contend with. With this machine, if an end breaks the individual spindle stops, you tie the end up, and it goes on. You get full quills all the way. We find there is about 30 per cent more yarn on the quill. We use an eight-inch quill. We have been able

to cut down our seconds with it. The main saving, however, has been in labor. We have been able to reassign some of the battery hands and the filling hands in the weave room. Some of the indirect saving is that we expect our quills to last longer. If we get 30 per cent more on the quills, that will be ultimately a saving of 30 per cent on quills.

Mr. B: Did you have to change from the quills you were using?

Mr. Brackett: No.

Mr. C: Can you tail-in a creel, or what do you have to do?

Mr. Brackett: You can tail-in a creel, but we haven't done that in our operation because we have so much changing to do. In other words, we're lucky if we can run out the whole cheese.

Chairman: How about the limits on yarn numbers?

Mr. Brackett: We have run in our operation from 17s to 40s, but we have seen the machine run from 4s to 120s in other plants.

Chairman: Thank you, Mr. Brackett. Now I'd like to call on Mr. Estes. I believe you have installed some Parks-Cramer loom blowers. Will you give us some information on them?

Mr. Estes: We were the first ones to install Parks-Cramer loom blowers. After about three years they became obsolete, and we have installed the latest model. We found we could pay for the installation in about three years. The length of time it takes to pay for those machines and blowers would depend on the number of loom cleaners you have. It happened that we had one on each shift and now we don't have any, so we cut out three people. There is another saving which is difficult to estimate in dollars and cents. When you blow off the loom you know the loom has to stand, and when you start it up the chances are that you have lint or oil in the shed. Now, of course, we don't have to stop the looms off. Another saving is that when you take the amount of cloth that is produced and sold the profit on that cloth runs into a considerable amount of money. In figuring these savings we didn't include that at all. All we took into consideration was the labor saving.

Mr. Stutts: In your particular plant you are on synthetics?

Mr. Estes: That's correct.

Mr. Stutts: Would it be successful on sheeting or something like that?

Mr. Estes: I couldn't say.

Chairman: What is the cost per loom?

Mr. Estes: We have an extremely wide loom, and the cost per loom was \$125. Of course, if you use narrow looms that would bring the cost per loom down.

Chairman: Are there any objectionable features?

Mr. Estes: There is only one, and that is that the floor will not stay as clean as when you use loom cleaners, because it goes down one way and comes back the other way. Before you can sweep up, the blower blows it back. You can't make any money by having a clean floor, though.

Question: Do you have an electric stop motion?

Mr. Estes: Yes.

Question: Do you have any trouble with the blower blowing lint or oil on the cloth?

Mr. Estes: No, once you get your loom clean. We probably have less oil now than we did with the blow pipe. In fact, I am sure of that. The blow pipe is probably the worst evil ever put in a mill, whether cotton, woolen or synthetic. The blower keeps the loom clean. You don't have to go in there and clean it.

Mr. A: Do you clean your loom at warp change?

Mr. Estes: Yes, that's the only time we clean it.

Mr. Stutts: I have seen these loom cleaners in synthetic mills and also in combed yarn mills but have never seen one in a carded yarn or a sheeting mill. If anyone knows about one I'd like to see it.

Chairman: Next we will go on to Mr. Schrum. I believe you have installed some 12 x 6½ roving frames. Will you tell us what you are doing on those?

Mr. Schrum: We put them in a few months ago, replacing 10 x 5 with 12 x 6½. Before putting them in we paid considerable attention to the pay-off or amortization period, and since we have had them running we have found they bear out the statement that they will pay for themselves in two years' time. We have such gains as 59 ounces on our roving bobbin, where before we were getting around 22 ounces. As regards the production, the production on the new frames is almost double what it was on the old 10 x 5—that is per spindle. That means, of course, fewer spindles to get the same amount of production. We are running at around 1,050 spindle speed or flyer speed, as compared to 850. The production is 184, as compared with 156 on the old. Of course, there



Willard, McCrary, Brackett

Clarence S. Willard, superintendent of Pacific Mills, Rhodhiss, N. C., is the new chairman of the Piedmont Division of the Southern Textile Association. Mr. Willard, who has served as vice-chairman of the division for the past two years, succeeds R. M. McCrary, superintendent of Carolinian Mills Inc., High Shoals, N. C. Succeeding Mr. Willard as vice-chairman is M. L. Brackett, general manager of Highland Park Mfg. Co., Charlotte, N. C. Election of officers was held at the Spring meeting of the division at the Hotel Hickory, Hickory, N. C.

is a labor saving on the roving. We have two Saco-Lowell apron-type-draft roving frames and are running synthetics on them. There has been some question about cleaning on roving frames with the apron-type drafting. We feel at present that, with the wide-gauge frame and narrow apron that the Saco-Lowell set-up has, we are able to keep a cleaner frame today with no more cleaning than on the old 10 x 5. We have Pneumastop on these frames, and that has eliminated a lot of the lint. You just don't see a snow storm in the card room any more. We followed it to the spinning room, of course, and actually we were able to accomplish about 100 per cent job change in our spinners. This was done by the installation of Pneumafil on our spinning and umbrella-type creels.

Chairman: You changed to 12 x 6½—maybe you would like to go more into detail.

Mr. Schrum: We were fortunate on that. We had four-inch gauge frames. We are on coarse goods. With those four-inch frames we were able to use them without change in the creel structure. We are also making .80 hank roving, and the frames are able to do that. We also have some Duo-Roth installation.

Question: What problems do you have in handling the roving?

Mr. Schrum: We lay the roving in the box. We are using both cotton and synthetics. They have to lay the roving on the roll. We find that the spinners actually spend no more time taking a bobbin off than they did before.

Mr. A: You said you made a 100 per cent change in job load. You mean in job assignment, don't you?

Mr. Schrum: Yes.

Question: How many roving operators do you have?

Mr. Schrum: We have only two operators. Our studies indicate, however, that they could handle more; and we are thinking about buying more frames. The actual flyer measures seven inches, and our actual package diameter is about 6¾ inches.

Chairman: Mr. Stutts, I believe you have installed some metallic card clothing. Will you tell us something about that?

Mr. Stutts: About four or five years ago we bought some cards, and of course we figured we had to reclothe all of them. One of those cards came in with metallic card clothing on it. We looked at it and decided not to take the clothing off. We kept looking at it, and it produced as good work as other cards in which we did not take particular interest. So we put metallic clothing on six cards and found after six months that those cards showed up better than our average cards.

As a result we got more interested and made more studies and have gone into a considerable experiment with this clothing and now have 20 to 25 cards equipped with metallic card clothing. From the standpoint of neps, we have found that after those cards have run from six months to a year we have fewer neps than with the other cards. Needless to say, you can get more production with

this type of clothing. I think your production can be increased from three to four per cent on your cards, due to the absence of stripping and the absence of grinding. I know there isn't a man in this room who hasn't had experience with this clothing in the past, and some of it has been sad; I think part of that is due to the lack of attention given to it in the plant and the lack of familiarity with it. Much of it was put in over the objections of the carder, and no attention was given it. If you put in this clothing you have to pay as much attention to your card as you do to the cards with regular clothing. The card has to be set up right, and so forth. I'm going out on a limb and say that in the next five years I think you will see a considerable increase in this type of clothing. There is a considerable saving in waste.

Mr. D: What kind have you?

Mr. Stutts: We have Hollingsworth and we have Ashworth.

Mr. D: Would you care to comment on the two?

Mr. Stutts: I think Hollingsworth has developed a better technique in putting it on, but that is a purely mechanical matter.

Question: Do you strip?

Mr. Stutts: Yes, we strip three times a week.

Mr. A: Vacuum or hand strip?

Mr. Stutts: Hand strip. There's one thing you will notice in that card. You'll have a lot of unevenness in the card sliver after you strip. You have varying weight in the sliver, so the less you strip a card the more uniform sliver you have.

Question: Do you know of any combed yarn mill using metallic card clothing?

Mr. Stutts: Yes, I do know of one mill; that is Joanna Cotton Mills Co. They have more combers in there, and they are going to 100 per cent with this clothing, I understand. I discussed this question with a so-called expert from Europe. He was discussing cards, and I asked him whether it was used in combed or carded mills. He said in both, that there is no set rule.

Mr. E: About four months ago, I visited a certain mill and found cards clothed in 1926 running on synthetics and doing a marvelous job. That's 30 years on a set of clothing, and I think that speaks mighty well for it.

Mr. Stutts: I think one of the reasons mill men have soured on it is this: When you first put it in you have to tell the card grinder that it is not going to take away his job. That was the way with automatic looms in England; they had a rebellion of the weavers over there when automatic looms were put in. You have to sell this to your people. If you put in these improvements and don't sell them to your people and your overseers they will not be successful.

Mr. A: I understand Joanna still sets them as often as before.

Mr. Stutts: We set ours only every 30 days.

Mr. A: You say you strip three times a week. Are your flat strips up?

Mr. Stutts: No.

Mr. A: Have you reduced your waste?

Mr. Stutts: Yes. We average a bale of cotton a year.

Mr. E: If you will take the metallic card clothing and put a solid screen under the licker-in you will find it will not hurt you. We have had five cards set up that way for about a year now, and it is a very interesting study. I hope someone else will try it.

Question: What becomes of the leaf and trash?

Mr. E: It falls out right under the doffer. There is a little opening right there where this trash falls out.

Chairman: We still have a little more time, and I think we can have one more item. Luke Brackett was taking out some Barber-Colman equipment, and perhaps he will tell us about some he is putting in—some drawing machinery.

Mr. Brackett: Here again is a situation peculiar to our operation. We have a tying-in machine, but we hardly ever get to use it because we don't have enough repeats. So that leaves us in the position of having to draw most of our warps. Until a few years ago we had strictly hand drawing-in. Figuring for the first quarter of this year, at the present rates, our warps would have averaged \$13.85 per warp to draw by hand. To draw those same warps by machine costs \$7.53. We feel that our drawing-in machines save us about \$80,000 a year over the hand drawing-in. We have three of the Barber-Colman Draw-Tex machines and can draw up to 20 harness on those.

Question: Have you had any noticeable excessive damage to the reeds by that machine?

Mr. Brackett: We have had to buy a few more reeds.

Mr. Stutts: Not \$80,000 worth?

Mr. Brackett: No, it wouldn't amount to much.



Estes, Schrum, McCrary, Brackett, Stutts

Participating in the panel discussion at the Spring meeting of the Piedmont Division of the Southern Textile Association were Cleon Estes, Pacific Mills, Rhodhiss, N. C.; Ed Schrum, Carolina Mills Inc., Maiden, N. C.; M. L. Brackett, Highland Park Mfg. Co., Charlotte, N. C.; and R. T. Stutts, Carolinian Mills Inc., High Shoals, N. C. R. M. McCrary of Carolinian Mills, outgoing chairman of the division, presided over the discussion. The meeting was held Saturday, May 5, at the Hotel Hickory, Hickory, N. C.

Chairman: Mr. Estes, I believe you have the CT-5 spinning blowers. Would you discuss that subject a little bit?

Mr. Estes: We had the old type for years and this last year went to the CT-5 type. The track remained the same, but we had to add a few braces because the CT-5 is heavier and had to have a little larger motor. The installation, taking the old ones off and junking them and putting on the new ones, cost us about \$8,000 or \$9,000. We paid for the installation in about seven months. That was due to less cleaning on the spinners. We gave them more sides, and we have found this much better than the older type. The older type, as you know, had two prongs sticking down. This has four; and the snouts, or whatever you call them, are so directed that they clean much better. They clean the creels, the boards, everything. We don't believe the extra horsepower that it takes to drive the CT-5 is enough, really, to consider. We have had very little trouble, and it does a much better job.

Chairman: Did you change your creels?

Mr. Estes: No, we did not.

Chairman: Did you consider the floor sweeper in conjunction with your CT-5?

Mr. Estes: Yes, we did. We tried out the floor sweeper, but we aren't ready to go into that.

Chairman: Mr. Stutts, I believe you've installed the Adamstop motion on your roving, haven't you? Would you comment on that?

Mr. Stutts: I believe any mill that doesn't have some stop motion on roving is losing a lot of savings. Both systems have merit. Some mills like one system, some another, but regardless of which system you prefer I think any mill that has a lot of roving frames can save a good deal of money by installing one of the systems.

Slater Mill Museum Opens For Second Season

The Old Slater Mill Museum in Pawtucket, R. I., opened for its second season June 15th and will remain open through Labor Day. The mill, first opened to the public last July, has long been recognized as a familiar historic landmark. On display this year are some of the early textile machines and exhibits of early textile methods and practices, including a pictorial presentation of the story of Samuel Slater and the American textile industry in its infancy. The old mill, located on the banks of the Blackstone River in Pawtucket, stands as a monument to the pioneers of our industry. It will be open daily except Mondays from 10 a.m. to 5 p.m.

Opening, Picking, Carding & Spinning

Pneumafil Systems For The Yarn Mill

By HOVAN HOCUTT, Vice-President, Engineering, Pneumafil Corp., Charlotte, N. C.

This paper was presented at the Spring meeting of the South Carolina Division of the Southern Textile Association in a program devoted to "Vacuum Scavenger Systems For Spinning Mills." The meeting, held Friday evening, April 27, at Pelzer, S. C., also featured papers by representatives of two other manufacturers of vacuum cleaning equipment as well as a panel discussion and a survey-questionnaire on adjustments encountered with the installation of vacuum cleaning equipment. Transcripts of all these proceedings follow.

CHOOSING the proper Pneumafil system for your mill is not a simple matter. You must study the equipment very carefully. There are many details which you must understand if you are to be sure that you will get all of the services which you have established as your objectives. There are three basic systems which you must examine, each with advantages and disadvantages. There are 27 combinations of equipment possible on the spinning frame itself. These 27 combinations do not take into account such devices as a bottom roll clearer which Pneumafil can furnish if you are very much concerned about the cleanliness of the steel roll.

You have probably reviewed the advantages of the new Lint Free Creel which was pioneered by Pneumafil and is standard equipment on many new spinning frames. Increased advantages are available in combinations of this creel and Pneumafil. You must be sure to get the right one of these many combinations to accomplish your objectives.

I mentioned three basic systems. We call them (1) unit type; (2) central air handling systems; and (3) central materials recovery systems. I would like to concentrate on one of these—the unit type. It is the simplest, the oldest and the most basic of the Pneumafil systems. It consists of suction flutes with orifices at each delivery roll, a collecting header which runs from one end of the frame to the other, and a collector unit equipped with a filter screen, a fan and motor.

Since I am responsible for engineering at Pneumafil Corp., I would like to point out the basic objectives of our engineering designs: (1) To furnish a complete line—that is, to make equipment available to cover every type of situation and every textile need to which our type of equipment can be economically applied. (2) To provide as much flexibility as possible—that is, to make our equipment available in the greatest number of variations so that it can be adapted to the specific requirements of any one mill; to

provide flexibility also for those changes brought about by natural evolution and progress so that our equipment can be adapted to changing needs rather than be discarded and replaced every time a mill changes some of its methods of operation. (3) Careful attention to detail—it is easy enough to design equipment which performs its basic function, but the little things often make the difference between merely satisfactory and very profitable machinery investments. Professional detail designing is accomplished only through years of constant attention and constant study of the problems involved. (4) Finally, but not least, cost—we do not try to make the cheapest equipment, but strive always to furnish the highest value for each of your machinery investment dollars.

Our Pneumafil Economizer unit is a good example, we think, of these objectives. It is the result of two years of concentrated design and testing and is based on the solid foundation of experience in equipping more than 20,000 spinning frames in this country. We call it the Economizer unit because of the considerable savings made possible by this advanced design in comparison with our old equipment. First, it saves space. The Economizer unit is 33 per cent smaller in over-all dimensions in one plane and 40 per cent smaller in the other. Second, it saves weight. The over-all weight is 29 per cent less than the old equipment.

Third, it saves horsepower. Over the operating range, efficiency increases of as much as 35 per cent are possible with this new equipment. Fourth, it saves maintenance expense. There are only two moving friction parts. These are the two motor bearings. This means that there are 71 per cent less moving friction parts than equipment which is belt driven. Now, I have said that we try to furnish a complete line and we also furnish belt-driven jobs. However, our customers almost without exception are choosing this streamlined design.

Fifth, it saves installation costs. This unit is delivered ready to run. Even the brackets are provided for mounting the frame switches. There is nothing to assemble. As soon as the unit is mounted on the frame and the power is connected, it is ready to roll.

Now the engineer must always be careful that he does not solve one problem only to create another. Although we have shown that this unit is considerably smaller, this design has not restricted other functional aspects of the equipment. For instance, the material collection compartment is more than 50 per cent larger than it was in our old equipment. This does not necessarily mean that you will want to collect twice as much material before cleaning the unit, but it does mean that you can collect it with somewhat better efficiency and you can take it out of the unit much easier. The filter screen or rather the area of the filter

screen is also very important to over-all efficiency. The filter screen in this unit is 15 per cent greater in area than the old. This adds considerably to the capacity of the equipment. What we have really accomplished is to make a collector unit that is larger on the inside and smaller on the outside.

Now, let's take a look at general construction features. These are cast aluminum end shields. We use a heavy steel plate wraparound. The whole thing is put together with a strong riveted assembly which gives us solid permanent construction like the spinning frame itself. The finish is baked enamel to give you the cleanest, smoothest and longest wearing surface.

The next is a feature which was developed to answer your insistence on flexibility. We have provided standard removable panels at the back and on the bottom of this unit. This makes it possible to connect the collecting header to the unit in any desired position. The header can be attached in the lower half at the back of the unit or at the bottom. We can turn the unit upside down because this equipment will operate in any position to provide a collecting header entry in the top half of the back or in the top of the unit. If the situation demands, the unit can be laid on its back or its front and efficient entry conditions are still available. The important thing is that this replaceable panel provides a means of making changes later without butchering up the basic unit. This unit can be moved from one frame to another requiring a different header entry without defacing the equipment. This is accomplished simply by replacing the inexpensive panel which is properly made to fit the new situation.

All of the outside surfaces on this unit are flush. There are no protrusions. All of the corners are round. There is nothing poking out anywhere to hang lint, sleeves or human skin. The door is big enough, and it is in the center of the unit where it ought to be. Notice that the handle is cast in, not fastened on. All corners are round. The inside of the door is smooth with no projections to hang lint. There is a molded seal all around its edges and a good vacuum seal is assured by a floating hinge. There is no latch but the door is closed automatically by a spring concealed in the hinge.

Now let's talk about the discharge arrangement. This is a somewhat controversial subject but the air must go somewhere. Some say it should go up, some say it should go down, but we say that it should go wherever your needs say it should go. It should be directed to suit the particular situation in your particular mill. This demonstration unit is equipped with a 360° diffusor, meaning that the air is released in four directions at once. If you want the air released only at the top or only at the bottom or only at the top and bottom, it is a simple matter to furnish the standard discharge cover designed specifically for your needs.

Inside the unit are the fan venturi and motor assembly, the parts that do all of the work. Fans are offered in four sizes. This range covers the variations in number of spindles, orifice size, air quantity requirements, etc. The blades are open on one side and therefore self-cleaning. This eliminates one service problem. Combined with the cast and machined venturi, this fan is responsible for the very high efficiency of the Pneumafil unit. Both the fan and the venturi are semi-permanent mold aluminum casting. This fan is fastened directly on the motor shaft and is another example of the flexibility of Pneumafil equipment. If requirements should change after the equipment is installed you

will find that it is cheaper to exchange these fans than it is to replace the V-belt drive.

The venturi casting is indicative of the tooling necessary to do the job right. One-piece semi-permanent mold aluminum casting serves as venturi and motor mount. It is not an ordinary sand casting. The metal is cast against steel in a great molding machine as big as two or three of these units. Combined with the motor it is an example of the attention to aerodynamic detail which has gone into the design of this equipment.

The motor is inside the unit and although protected by the filter screen it is of totally-enclosed design. This motor was designed especially for this particular Pneumafil unit by Pneumafil and Allis-Chalmers engineers working together. It was tested for a year by both companies before it was released for production. Frankly, we redesigned it six times before all concerned were satisfied with the performance. It is small for the power produced, but this is possible because it is cooled by all of the air handled by the Pneumafil fan.

The end bells serve more than the function of providing bearing supports and enclosures for the motor. The back end is designed so that it will produce the correct aerodynamic flow into the venturi and fan. The front end furnishes the mechanism necessary to tighten and hold the filter screen in rigid and proper position.

Now here is a feature that your serviceman will appreciate. If it is necessary to service any of the equipment, your mechanic can get to the fan by removing six screws in the discharge order. Then by removing eight small bolts



Hovan Hocutt, chief engineer for the Pneumafil Corp., Charlotte, N. C., described his company's vacuum cleaning equipment at the Spring meeting of the South Carolina Division of the Southern Textile Association. The meeting, held April 27 at Pelzer, S. C., was presided over by Joe N. Jenkins, chairman of the division and manager of the Addison Plant, Kendall Cotton Mills, Edgefield, S. C.

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he is able to remove all of the working parts in the unit assembled to one back plate. By keeping a spare of this assembly in your shop, the entire assembly can be replaced in a matter of minutes and the spinning frame can be put back into operation. A minimum of down-time and loss of production is involved. After the spinning frame has been put back into operation, the defective assembly can be taken to the shop where you have the proper tools, facilities and time available to do the repair job properly.

The central air handling system uses the same collector unit on the individual frame except that it is not equipped with an individual fan and motor and the discharge cover is designed especially for the central air handling arrangement. However, it does have all of the features found on the unit equipment. This is another example of flexibility. In the central air handling arrangement, instead of an individual fan in each unit, a group (which can be from ten to 40 frames) is supplied with suction by a central station fan and appropriate duct. The arrangement gives you control of the discharge air. It can be returned to the room with better control of distribution or, in the Summer, it can be exhausted to outside of the mill. It can be handled through the air conditioning system. This is currently the most popular type of Pneumafil system.

The central materials recovery system is unquestionably the system of the future. The collector unit on each frame

is eliminated entirely. The air and collected material are both handled through central duct. The collected material is separated from the air by our unique jet concentrator. The air is then handled through a central station fan the same as with central air handling and with the same advantages. The collected material can be transported pneumatically to any desired spot inside or outside the mill. If deposited in the picker hopper, it is a completely automatic system. The material is collected and put back into process (as they love to say in the food industry) "untouched by human hands."

There is a lot of talk in other industries about automation. Many say that this is one form of automation for the textile industry, and that we in this business can begin to use this ten dollar word ourselves. Regardless of your definition of automation there is no doubt that this is an example of complete mechanization. Everyone recognizes that unit and central air handling Pneumafil systems effect a sizable labor savings in the cleaning operations, in the spinning room. The central materials recovery system now adds to this the complete elimination of the waste handling by human hands.

The obvious conclusion to draw from all of this is that there is no "pat" answer to your needs for equipment of this type. Pneumafil is no longer a single product. It is a line of products. You must make a thorough study of the many alternatives in order to decide on the correct arrangement to satisfy the objectives you have established.

Vacuum Systems By The Bahnson Co.

By ARTHUR E. THOMAS, Bahnson Co., Greenville, S. C.

FOR over 40 years Bahnson has engineered, manufactured and installed a broad line of air conditioning and humidifying equipment for the textile industry. It was only natural for us to extend our engineering and manufacturing knowledge to other lines of equipment for the textile manufacturers. Our first venture was the Bahnson Allred traveling ceiling cleaner, this cleaner proving its superiority in its performance on numerous installations. From the first step in expanding our lines of equipment, we now offer traveling spinning frame cleaners, adaptable to most existing track systems or completely new track systems, automatic floor sweepers, loom cleaners for single track or crane track mounting, skeletonized creels, and Collecto-Vac equipment. We wish to mention our skeletonized creels, for often they go hand in hand with vacuum collection systems.

The manufacturing facilities of our plant allowed us to offer a creel for greater lateral rigidity due to the fact that the longitudinal runners, manufactured of stamped steel or extruded aluminum, are set and fastened in notches in the strong stamped steel cross arms. This not only offers rigidity but also reduces the exposed portion of structural members of the creel resulting in less lint-catching surfaces. These, and additional features available on Bahnson Open-Aire creels, make it what we consider the sturdiest and most attractive creel on the market.

With the vacuum collection equipment, which we call Collecto-Vac, both engineering background and manufac-

turing experience are in evidence. There may not be much room for originality and inventiveness with the basic vacuum collection unit which was originally conceived and patented in 1908 by a Mr. Stephen B. Shipp of New Brookland, S. C. There is, however, quite a bit of room for originality, which we believe our company has shown, in solving the problem that is created by installing vacuum collection equipment in a spinning room since this equipment raises the total heat load in the spinning room. Each manufacturer of vacuum collection equipment has his own good reasons for feeling that his product is superior to the other, and we would like to tell you our reasons for having a very strong feeling about this matter as far as our Collecto-Vac equipment is concerned.

The first points stem from our engineering experience. For over 40 years we have been dealing with air handling problems and we believe that we have been exceptionally alert to the air handling problems of vacuum collection systems. In our original analysis of the situation, we suspected a more uniform suction pressure could be maintained throughout the length of the spinning frame if the tubes feeding from the suction flutes to the main ducts entered this main duct at an angle directed toward the fan. Our tests confirmed this fact, but unfortunately, due to frame construction, actual application of this feature is limited. We therefore undertook the redesign of our centrifugal fan and a more careful and thorough design of the main collector

duct to improve the operating efficiency of our equipment since angular entry was so limited in its application. This we were more successful in doing with the finding that the fan and its operating characteristics were of the greatest importance to the end result of air handling at less horsepower.

The second point of consideration grew from our long years as manufacturers of equipment for textiles. In approaching the manufacturer of the vacuum collection system, we decided to employ the best materials that were available and to make the equipment rugged and durable since this is a basic criterion of any textile machinery. Accordingly, we chose aluminum for the material of the suction flute instead of plastic which is used by other manufacturers. A special process had to be developed for properly deburring the aluminum tubes after the slots were cut and the right angle tube leading to the main header was installed. The process of deburring the flute is an expensive one, but we feel that the advantages of having a material that will not warp or crack and which has a hard impervious finish through the process of anodizing with the option of eight different attractive colors, is one that gives evidence of our desire to make the equipment the best that we can and warrants the added cost we have assumed.

The plastic flutes as used by some competitors, are thick-walled in construction as a means to offer rigidity to the flute itself. Even so, severe warping has been experienced. On these thick-walled plastics, tapered chamfered orifices are necessary. It is true that this tapering of the orifice allows for less resistance to air flow than the straight edges of our anodized aluminum flutes, but by using a larger orifice on our flutes we are successful in moving equivalent volumes of air per spindle at less horsepower consumption. The conclusion would be that orifice coefficient, or resistance to air flow, is therefore relatively unimportant in the end collection system due to the fact that for a given pressure drop across the orifice, the area would be the determining factor. In fact, this coefficient, or resistance to air flow, is most desirable as the larger area of the orifice has resulted in a substantially greater net open area for suction adjacent the front steel row which means more efficient lint collection.

It is obvious that a greater efficiency can be obtained if the suction at the end of the spinning frame can be held at the proper level with a minimum suction pressure in the collection box itself. This contributes to a saving in brake horsepower as well as more reliable operation and it is a function of greater uniformity of the suction pressure down the length of the frame. Actual comparative field tests with leading competitive equipment prove the value of our attentiveness to this feature. To dwell on field tests would be most time consuming, therefore I will not go into a detailed discussion of them. I would like to say, however, that we of The Bahnson Co. feel that the proof of the pudding is in the eating and on all field tests to date the performance of our equipment has been equal or superior to leading competitive equipment and in all instances at a lower operating horsepower for equivalent air volumes and suction pressure.

Our method of supporting flutes to the frame is somewhat similar to competitive units whereby a spring fastener to the roll stand is the supporting medium. On our flutes the end plugs of the flute itself always remain in a fixed position. The spring support is dead center of the flute and the only adjustment is made where the spring fastens to the



Thomas, Walters

Representing The Bahnson Co. at the Spring meeting of the South Carolina Division of the Southern Textile Association were Arthur E. Thomas, Bahnson's Greenville, S. C., representative, and W. Frank Walters, a recent addition to the company's sales force. The meeting was held Friday, April 27 at Pelzer, S. C., with Kendall Cotton Mills acting as host.

roll stand. Once this adjustment is made there is no possible means for the orifices of the flute to become mis-aligned. An oil and ozone-resistant synthetic material is used for the connection between the flute and the aluminum tubing leading to the main header as well as the entrance to the main header. Aluminum, not aluminized steel or inferior material, is used for the main header duct. The box itself is of very rigid and rugged construction and is stamped in two halves from 14-gauge sheet steel. By using a ratchet wrench, only four bolts must be loosened to take this box apart.

The problem of maintenance was given special consideration. With the belt-driven unit which affords additional flexibility and a potential saving in brake horsepower, the maintenance of the motor is simplified in that a standard motor can be used and it is located outside of the box where it is easily accessible. For the internal motor design, a collection box as manufactured by some people requires the removal of end panel for access to the fan or motor. Frequently the spinning frame switch is located on this end panel and it is necessary to remove the switch to get to the motor or fan of the unit. With the Collecto-Vac box, a round plate in the end of the box can be removed without removing the spinning frame switch and gives complete access to the fan for the belt-driven unit or the fan and the fan motor for the integral motor unit.

In considering the over-all performance of the vacuum collection system, attention must not only be given to the collection of the broken ends with reliability throughout the length of the frame and the amount of extraneous lint and fly in the air that is drawn into the system to provide a cleaner room and to salvage cotton that otherwise would become waste, but consideration must be given to the problem that any vacuum collection system creates in a spinning room in that it adds approximately ten per cent to the total heat load in a room. One solution to that problem which has been in operation for some time is the utilization of a central fan which ties a number of spinning frames together and which discharges this air from the system either to the outside or returns it to the room through an air conditioning system or high level diffusers. One

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objection to this approach is the fact that it does not have any effect on the motor alley heat normally located in the same area with the vacuum collection box.

The application of this particular design for heat removal is covered by a patent held by a competitor and The Bahnson Co. has respected this patent and refused to infringe its claims. Our company prefers to seek a better way for accomplishing the desired results rather than to challenge the patent of another company even if reasonable hope could be held in successfully contesting the validity of that patent. Accordingly, our company has devised two solutions for the distribution of the heat added to the room by the unit vacuum collection systems that go further than the solution that has been proposed to date and installed by others. We do not feel disposed to discuss in this public

meeting the details of our solution, but we would be pleased to make a survey of any particular mill wishing to investigate the application of these new principles to existing unit vacuum collection systems in their plants or to new or contemplated installations that they may be considering. Actually, one method will remove almost twice the heat from the room at a competitive first cost and horsepower than is removed by competitive equipment.

In summary, it is our belief The Bahnson Co. has fulfilled the reputation built up over 40 years of designing and manufacturing reliable equipment for the textile industry that reflects sound engineering, the selection of the best materials and precise manufacturing procedures, careful attention to the problems of brake horsepower and maintenance, the high standard of performance from the equipment, and originality in solving the problem of the additional heat that a vacuum collection system will add to the spinning room.

SpinSaVac Systems For The Yarn Mill

By H. W. HEWITT, SpinSaVac Corp., Charlotte, N. C.

THE Turbo-vac unit collector is one of the latest additions to the SpinSaVac family. This unit consists of heavy-gage fabricated metal cabinet which houses a Turbo-vac aluminum cast impeller directly connected to a motor which is mounted on the inlet cone with a cone shaped filter to separate the material recovery chamber from the fan chamber. The Turbo-vac impeller discharges air into a diffuser chamber with diffuser vanes to direct the discharge air either straight up or down or a combination thereof. The material recovery chamber is connected to an aluminum duct to which orifices are connected through aluminum tubing. The Turbo-vac impeller creates adequate vacuum throughout the system to induce the recovery of broken ends, fly or sliver.

The Turbo-vac impeller is made in three basic sizes with arrangements to utilize a multitude of diameters to satisfy economically the requirements for a specific number of orifices that will be required for a specific yarn making machine. The inlet cone is designed to permit the flow of air around and over the motor so that heat generated by the motor may be conveyed from the cabinet and adequately diffused into the room. The discharge opening from the cabinet is designed and built to diffuse the air into the room without harmful turbulence in the room to disturb the humidifying or air conditioning system.

The orifices are carefully designed and manufactured to recover material with maximum static regain of the pressure drop across the orifice. The orifices have rounded edges to produce perfect entrance to a specially designed and shaped conduit. This collecting conduit is designed to facilitate the following advantages: (a) To fit under the bottom front roll out of the way to facilitate piecing ends by the operator. (b) The shape is designed to resist warpage. (c) The ethyl cellulose material is selected to resist static electricity when treated with a special destatizer. (d) The standard color is aluminum; however, the collecting tube may be made any color desired. The duct connecting the orifices with the cabinet is fabricated from .040 aluminum.

After it is fabricated the internal surfaces are buffed to produce smooth snag-proof surface.

Central Fan System With Unit Material Recovery

The SpinSaVac central fan system with unit material recovery consists of a single fan connected to multiple



H. W. Hewitt, president of the SpinSaVac Corp., a division of Parks-Cramer Co., Charlotte, N. C., had a large display of vacuum end-collection equipment with him at the Spring meeting of the South Carolina Division of the Southern Textile Association. The meeting, held April 27 at Pelzer, S. C., was attended by some 250 persons.

material recovery cabinets. These cabinets are described under Turbo-vac unit collector except the motor and fan are deleted.

The advantages of the central fan system are: (a) the motor may be removed from the spinning room when there is a floor below; and (b) there is complete control of the central fan air to be discharged outside or returned to the room.

The disadvantages are: (a) many frames are dependent upon one fan and one motor; and (b) it is more difficult to maintain equal suction at each frame.

Central Fan System With Central Material Recovery

This consists of multiple frames connected to a central fan through material handling duct with a material separating section between the frames and fan. The frame is equipped similar to the Turbo-vac unit collector except the cabinet is deleted.

SpinSaCreel

The SpinSaCreel consists of cast aluminum creel supports; cast aluminum creel brackets; extruded aluminum creel track; extruded aluminum weight support tracks with weight rod holders; $\frac{3}{4}$ -inch stainless steel roving guide rod; and one-inch creel post. SpinSaCreel will accommodate $2\frac{3}{4}$ gauge and up with 10 x 5 package single or double roving or 12 x $6\frac{1}{2}$ package single roving. The SpinSaCreel is designed to fulfill the versatile requirements of the modern spinning frame. When SpinSaCreel is purchased and installed concurrently with SpinSaVac and the duct is placed above the samsons, the resulting economies make it the best way to purchase.

Integration Of Spinning Frame Equipment

The present day spinning room modernization programs present a multitude of problems. The chief one is to determine the most economical means to erect all the components and pieces of equipment on the spinning frame. In order to accomplish this problem, careful co-ordinated consideration must be given to the various manufacturers of equipment for the spinning frame. The Parks-Cramer traveling cleaner, the SpinSaVac, the SpinSaCreel, the Parks-Cramer floor sweeper and Parks-Cramer humidifying and air conditioning system can be integrated with the other spinning components to insure maximum savings. This can be done through Parks-Cramer Co. with one source of supply resulting in one source of responsibility.

Panel Discussion

Chairman: Usually when you install labor-saving devices, you don't just put them in without making some sort of adjustment, and certainly the vacuum scavenger system is no exception. With the installation of vacuum scavenger systems we usually have to consider such things as humidity, top-roll lap-ups, maintenance, waste, cleaning, etc., just to mention a few items. Using our questionnaire summary as a guide to go by, I'd like to ask our panel a four-part question on humidification. (1) What type humidification do you use with your vacuum system? (2) What relative humidity is needed for the vacuum system? (3) Do you have any variation in humidity from the head end to the foot end of the frame? If so, how do you overcome the variation? (4) Do you feel that some system of air change is necessary to the per-

formance of the vacuum system? Why? Mr. McClure, will you give us your experience.

Mr. McClure: We have the American Moistening system of humidification, just an atomizer, and our experience has been that from 35 to 40 per cent relative humidity is the best for our operation. We do experience a variation in the humidity from the head end to the foot end of the frame, to about ten points. If we are trying to hold 35 per cent, we will range from about 30 to about 40 per cent. To date we have not been able to overcome this variation. We have plans to add heads in the motor alleys and hope that by adding the additional heads there we might get a better distribution. With regard to the question as to whether or not some system of air change is necessary, we do not know whether or not it is necessary but we certainly feel that it would be desirable, to say the least.

Mr. Bodie: We have the washed air system and we try to run our humidity between 40 and 45 per cent. In the Winter time we hold it down to 40 per cent and try to keep it just as cool as possible. We vary from Winter to Summer, due to the cooling of the room. On the variation in the humidity from the head to the foot end of the frame, we have checked that several times, but it is not noticeable. We do not have any variation that we can find. So far as feeling that some system of air change is necessary, I could not comment on that because we do have the air change.

Mr. Thompson: We have humidity in the spinning room, with atomizers used as the method of humidification. We run about 50 per cent all year around. We feel that we get better results with that, and better cleaning. We reduced from 55. We don't find that we have any variation to amount to anything from the head end of the frame to the foot of the frame. I think it is less than two per cent. We use the central material recovery system, and I think we would need the air change that we have to make that successful.

Mr. Ware: We have American Moistening and air change, with atomizers, and a relative humidity of about 36 per cent. I'd like to stress the temperature there. You should keep it from 88 to 90 degrees. We have not noticed any variation in humidity from the head end to the foot end of the frame.

Chairman: Are there any questions from the floor about humidification?

Question: Does anybody have refrigeration?

Mr. Thompson: Yes.

Question: What is the dry bulb temperature?

Mr. Thompson: 78 to 80 degrees.

Mr. A: I'd like to ask Mr. McClure why he runs such low humidity. He says it is 35 per cent. I'd like to know why he doesn't run 45 or 50.

Mr. McClure: I'm afraid you're going to force me to go into the question of lap-ups. That's what caused it.

Mr. A: What type of spinning is it?

Mr. McClure: Roth, Saco-Lowell.

Question: How many months out of the year do you run refrigeration?

Mr. Thompson: I don't know.

A Member: About seven months.

Chairman: Let's go on now to the next question, which is on drafting systems. There are four parts, as follows: (1) What type of drafting system are you using with the vacuum system? (2) Do you use anti-friction top rolls or solid rolls? (3) How often do you oil top rolls? (4) Do you find it necessary to add more top-roll weight for the vacuum system?

Mr. McClure: We have the Saco-Lowell drafting system. We oil the top rolls twice a week and the back rolls once a week. We have not found it necessary to add more top-roll weight.

Mr. Bodie: On our top rolls, we are using at the present J-490. That's all we've ever used. We find that it is a very good roll for our needs, and although we have experimented with some other types I still go back to the J-490.

Chairman: Are you using anti-friction or solid rolls?

Mr. Bodie: I am using solid rolls. As to the top-roll laps with the vacuum system, the question is asked as to whether the laps go around the top roll when the end breaks or if they are lost from the vacuum control later. I think there is a percentage there, probably, of both, but I think the most ends we have would be the top-roll laps rather than the other. Getting back to the drafting system, we are using Whitin Super-Draft with the solid rolls. We oil ours twice weekly, because we have the Dixon saddle.

Mr. Thompson: We use the Whitin Super-Draft and the anti-friction-type top rolls. We have a center extension streamline

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system and do not do any oiling on these rolls. We did not find that we had to add any extra weight for the vacuum system.

Mr. Ware: We use the Whitin Super-Draft with solid rolls and anti-friction rolls and oil the solid rolls once a week. We also have a cleaner line and Duo-Roth.

Chairman: Did you find it necessary to add more top-roll weight?

Mr. Ware: No.

Chairman: Are there any questions from the audience on drafting systems?

Mr. A: What is your yarn?

Chairman: 31s.

Mr. A: What are your ends down per 10,000 spindles?

Chairman: 10,000?

Mr. A: Yes.

Chairman: I will look it up later and give it to you, per 1,000, and you can figure it out for 10,000.

Question: What are the roving numbers?

Mr. Ware: Mine is 1.00 hank.

Question: You are making 31s?

Mr. Ware: Yes.

Chairman: What about you, Mr. Bodie?

Mr. Bodie: 1.00 hank, and 31.

Mr. McClure: 1.00 hank and 1.25 hank on 31, warp, and 2.30 hank on filling.

Chairman: The question has been asked, what is your effective weight on your top rolls, over-all?

Mr. Ware: Mine is about 62 pounds.

Mr. Thompson: Ours runs from 54 to 63 on different types of frames.

Mr. McClure: We are as low as about 55 and as high as 65.

Mr. Bodie: Mine is from 58 to 62.

Question: What is your weight distribution on the rolls?

Mr. Ware: I believe mine is about 28, 22 and 15.

Mr. Thompson: Ours runs about 50 per cent on the front roll. Where we have 63 pounds, I believe it is 32 pounds on the front and 23 on the middle, and the rest is on the back.

Mr. Bodie: Mine runs about the same thing.

Chairman: Are there any other questions on the drafting system?

Mr. A: I understand you run 1.00 hank roving and are making 32s, Mr. Ware. Is that right?

Mr. Ware: 31s.

Mr. A: May I ask the spindle speed and the twist multiple?

Mr. Ware: I am using 10,500 spindle speed and 4.25 twist multiple.

Mr. A: Very good. What kind of spindle?

Mr. Ware: S-K-F.

Chairman: We will go to the clearers now. Under that topic we have five questions. (1) What type top clearers are you using with the vacuum system? (2) Have you tried any variations in revolving clearers to overcome top-roll laps? (3) What types of variations in revolving clearers have you tried? (4) Which did you find to be most successful? (5) Are you able to reduce the frequency of picking flat clearers with the vacuum system? How much?

Mr. Ware: I use revolving top clearers and I have tried off-center pins on one frame, but they didn't do too well. I believe it increased my gouts. It might have helped the lap-ups slightly.

Chairman: You don't have any flat clearers at all?

Mr. Ware: No. I reduced the clearer picking to 144 hours from 240.

Chairman: That is with the revolving clearers?

Mr. Ware: Yes.

Chairman: What about you, Mr. Thompson?

Mr. Thompson: We are using revolving clearers only; we have no flat clearers at all.

Chairman: Have you tried any variations with the center pins?

Mr. Thompson: No. We do not have any trouble with laps.

Mr. Bodie: We have revolving clearers on the front rolls and stationary clearers on the middle and back rolls. As far as variations in revolving clearers are concerned, I have one frame on them, but that is off-center.

Chairman: Off-center?

Mr. Bodie: Yes. I don't think it works out too well. It may help the lap-ups, but I don't think it improves the quality of the yarn any. As for reducing the frequency of picking the flat clearers, we are picking ours every 144 hours.

Chairman: That is the flat clearers on the back and middle rolls?

Mr. Bodie: Yes.

Mr. McClure: We have both the flat clearers and the revolving clearers. We have tried variations in the revolving clearers. We have tried offset fans and have tried flat fans, and they even tried traverse fans. None of them have proved to be any improvement on the revolving clearers. On the flat clearers we were able to reduce picking to twice in eight hours, and we brush over the back two rolls twice in 24 hours. Before it was three times in eight hours and once in 24 hours.

Mr. A: May I ask your front-roll speed, Mr. Ware?

Mr. Ware: 137.

Mr. A: Now I should like to hear about your experience with Pneumafil and things like that with regard to top-roll laps. How could they correct that? Do you use anything on the back?

Mr. Thompson: Just a front revolving clearer.

Mr. B: Have you been doing that very long?

Mr. Thompson: A little over a year.

Mr. B: Do you have a traveling cleaner and blow through with that?

Mr. Thompson: Yes.

Mr. B: Do you have very many gouts?

Mr. Thompson: They're not excessive.

Chairman: Does any member of the panel have trouble with lap-ups?

Mr. McClure: We have some trouble with them.

Chairman: Mr. McClure, do you remember what your lap-ups run, and your ends down?

Mr. McClure: We have frames on revolving clearers and on flat clearers. On the flat clearers the top-roll laps are no problem; on the revolving clearers they are. It was a considerable problem to begin with. We had as high as 20 per cent of the ends-down lap around the top roll. We worked on it from a lot of different angles. One thing we did was to adjust the roving traverse. Another thing was to work with the humidity, and we think reducing the humidity and trying to maintain it did us more good than anything else. We worked with the revolving clearers and tried variations and got no benefit from that, but by changing the cots we got considerable benefit.

Chairman: Do you other gentlemen have any comments to make?

Mr. Thompson: I think we reduced the top-roll laps when we went to the vacuum system. I don't know exactly what they were before, but I think our top-roll laps are now running about three per cent.

Chairman: You say you reduced them when you went to the vacuum system?

Mr. Thompson: Yes.

Chairman: That is with the revolving clearer fore and aft?

Mr. Thompson: Yes.

Mr. McClure: Mine are running approximately ten per cent.

Mr. Ware: Mine are running from seven to eight per cent. The lap-ups are 75 per cent top and 25 per cent bottom.

Mr. C: I should like to ask a question of the gentleman who is using front-end and back-end revolving clearers. Do you have any trouble with lint collecting on the cot?

Mr. Thompson: No.

Mr. C: What type of cot do you use?

Mr. Thompson: We use Armstrong 728 on the front and back line.

Mr. C: Do you take them out to clean them?

Mr. Thompson: Oh, yes, we take them out periodically to buff them.

Chairman: The next topic is top-roll cots, and there are five questions on it. (1) What type of cot are you using on the vacuum system with (a) revolving clearers and (b) flat clearers? (2) What type of top roll do you find best for reducing top-roll laps with the vacuum system? (3) If you are experiencing top-roll laps with the vacuum system, do you find they go around the top roll when the end breaks, or are they being lost from vacuum control later? (4) What percentage of top-roll laps to total ends down are you experiencing with the vacuum system? (5) What did you do to improve top-roll laps? Mr. McClure will you start off on that one?

Mr. McClure: We are using J-490, 764 and 728 on the revolving clearers. On the flat clearers we are using 727 and 742 S, all of which are Armstrong. We find the 728 cot to be best from the standpoint of top-roll laps. We have about half as many laps with

it as we do on J-490 and 764. Our experience is that the end is lost from the vacuum. We have on 728 about five per cent of our ends lap up, and on J-490 and 764 about ten per cent lap up. The work we did to improve top-roll laps I believe I went over—reducing humidity, adjustment of roving traverse, working on the top-roll cot, and going to $\frac{7}{8}$ -inch cotton.

Mr. Bodie: I am using J-490 on revolving clearers. I don't know which would be the best. I have experimented with some of the 742 cots, but we went back to the J-490 cots because we felt that the J-490 cots would give us longer life and we couldn't tell too much difference in the lap-ups. As for our experience with the top-roll laps and the ends lost from the vacuum control, I think we have some of both; but I think ours show more top-roll laps than they do ends lost from the vacuum. I think a lot of them could be due to the oil. We are using a lot of oil on them, and I lay some of the top-roll laps to that. As to the percentage of top-roll laps to ends down per 1,000 spindles, we are losing about ten per cent top-roll laps. We shortened our roving traverse and set our flutes about $\frac{1}{8}$ -inch from the roving. I think that helped us quite a bit.

Chairman: Mr. Thompson, what has been your experience?

Mr. Thompson: As I said before, we use the 728 Armstrong cot, and I think that is the best so far as top-roll laps are concerned. We haven't been bothered too much with them and haven't done too much work along that line.

Chairman: You're lucky.

Mr. Thompson: Well, I think not having any oil on the top roll is one thing that contributes to that.

Chairman: How about you, Mr. Ware?

Mr. Ware: I am using Armstrong 728 and J-490. We have all revolving clearers. We had some Dayton SG-60 installed just about ten days ago, which is the Dayco cot. The last looks very encouraging; I have fewer lap-ups on that than I do on the 728 and the J-490. To cut my lap-ups down I adjusted the roving traverse, as the gentleman over here said, and adjusted each individual trumpet and worked on the humidity. My percentage of top-roll laps to the total ends down is seven to eight per cent; 75 per cent on the top roll and 25 per cent on the bottom.

Chairman: Are there any questions from the floor?

Question: What is the length of your roving traverse?

Mr. Ware: I believe $\frac{3}{8}$ of an inch. I really don't remember.

Mr. McClure: Ours is $\frac{1}{2}$ inch to $\frac{3}{8}$ of an inch.

Mr. D: Talking about top-roll laps, do you say you aren't having any to speak of?

Mr. Thompson: We're having about 2.5 per cent ends down on the top rolls and about three per cent on the steel rolls.



McClure, Bodie, Jenkins, Thompson, Ware

Panel members at the Spring meeting of the South Carolina Division of the Southern Textile Association were E. T. McClure, overseer of spinning, Upper Plant, Kendall Cotton Mills, Pelzer, S. C.; Fred Bodie, overseer of spinning, Lydia Cotton Mills, Clinton, S. C.; Lewis Thompson, superintendent, Riverdale Mills, Enoree, S. C.; and B. M. Ware, overseer of spinning, Calhoun Mills, Calhoun Falls, S. C. Presiding over the discussion on scavenger cleaning equipment for spinning frames was Joe N. Jenkins, chairman of the South Carolina Division of the S.T.A. and manager of the Addison Plant, Kendall Cotton Mills, Edgefield, S. C. The meeting was held Friday evening, April 27, at Pelzer, S. C. Kendall Cotton Mills was host for the meeting, attended by more than 250 persons.

Mr. D: It seems to me from a study I have made that the top-roll lap-ups are due to static in the frame. When the force of the static is greater than the force of the Pneumafil or other suction system then you have top-roll lap-ups. The problem is to overcome the static.

Chairman: Are there any other questions on top-roll cots? If not, we will go on to the next subject, which is end breakage. Under it there are three questions. (1) Do you find that the vacuum system reduces ends down? How much? (2) What are your yarn numbers and ends down, running with the vacuum system? (3) Did you find a change in traveler weight necessary for the vacuum system? How much?

Mr. McClure: We do think the vacuum system reduces ends down about five to possibly ten per cent. We don't think that an increase in traveler weight is necessary.

Mr. Bodie: We have found that the vacuum system reduced our ends down from 12 to 15 per cent. We have some frames on which we do not have Pneumafil and have run tests and find that we run about 15 per cent lower with the vacuum than we do with the other. I do think it helps, yes. As to the number of yarn, we are running 31s; and we are running approximately 38 ends down per 1,000 spindle-hours at the present time. As to a change in the traveler weight being necessary for the vacuum system, we did not find that. We use the same weight in the traveler.

Mr. Thompson: We think the vacuum system does reduce the ends down. We don't know how much. As in most of our change-overs, we did other things at the same time we put in the vacuum system, such as putting in anti-friction top rolls and anti-friction spindles. We are running 8s to 34s yarn, and our ends down are running 20, on the average.

Mr. Ware: We find that the vacuum system reduces the ends down. I don't know how much. On our Whitin warp the ends down are approximately 20 to 25. On my cleaner line my test yesterday showed 14. We did not change the travelers.

Chairman: You don't need to. Are there any questions from the floor on end breakage?

Mr. F: Do these men spin cotton?

Chairman: Yes. You all do, don't you?

Panel: Yes.

Mr. F: My boss is going to read this and say: "Why can't you do that?"

Chairman: I think they're all honest. Let's move along to the next subject, cleaning. There are four questions. (1) Does the vacuum system create a problem with you as far as dirty steel rolls are concerned? (2) How are you coping with this problem? (3) What method do you use to clean flutes on the vacuum system? (4) Have you found that you can reduce roll picking with the vacuum system? How much?

Mr. Ware: The vacuum system does create a problem as far as dirty steel rolls are concerned. To cope with this we have to clean them every 48 hours with the roll picker. We use just a suspended roll picker; we find that is the most efficient way. With the vacuum system I reduced my roll picking from every 24 hours to every 120 hours.

Chairman: What method do you use for cleaning the flutes? Have you any particular method of doing that?

Mr. Ware: We clean those by hand.

Chairman: Just with cotton? Or a rag maybe?

Mr. Ware: Yes.

Chairman: How about you, Mr. Thompson?

Mr. Thompson: Our front steel rolls do get dirty. We clean those with a small brush once every 24 hours—just a little round bristle brush. They get dirty on the end of the boss, and we clean them with a small bristle brush. Our traveling cleaners have the long arms and blow on the flutes there and help to keep those clean. We have reduced our roll picking, but it has been due mostly to the anti-friction top rolls instead of the vacuum system. Of course, the vacuum system helps, but the anti-friction top rolls are the biggest factor there.

Mr. Bodie: We find that it does create a problem with us with dirty front rolls. We have our spinners clean them once a week with the roll picker; and every day each spinner cleans a third, so we clean them all in 24 hours. The spinner cleans them with her finger. We blow out the flutes, and if any of them are corroded or have an accumulation in the bottom we take a brush and get that out. We find that the vacuum system does reduce roll picking approximately 20 per cent.

Mr. McClure: We find that maintaining cleanliness of the front

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steel rolls is definitely a problem. We are picking them every 24 hours with the mechanical roll picker. We have tried a brush but we find it awkward from the standpoint of getting the lint into the work, due to the fact that our gauge is a little narrow. People that have wider gauges are using them satisfactorily, I understand. As to the way we clean our flutes, we have a little gadget that is on the end of a rod, a kind of half-moon arrangement covered with felt. We just slip it into the flute, and it does a very good job of cleaning the lint off. We would reduce the roll picking except for the fact of the dirty steel roll, which has to be picked every day. We have not been able to reduce it, for that reason.

Chairman: Are there any questions from the floor?

Mr. G: On this vacuum system I'd like to know how you clean out the units.

Chairman: You mean the collector box itself?

Mr. G: Yes.

Mr. McClure: We clean ours twice in eight hours.

Mr. G: Do you weigh it when you clean your collector box?

Mr. McClure: Not all the time. We just make occasional spot checks.

Chairman: Let's go on to the question of waste. There are three heads under that subject. (1) What percentage of scavenger waste are you having with the vacuum system? (2) How does this compare to the conventional spinning frames? (3) Have you detected any measurable reduction in spinning sweeps? Mr. McClure, will you start off on that?

Mr. McClure: We have about 1.5 per cent. It is about double what it was before we put on the vacuum system, and we haven't found any measurable reduction in sweeps.

Chairman: How about you, Mr. Bodie?

Mr. Bodie: On our scavenger waste we are running about two per cent. As compared with conventional spinning, we run around 1.5 or 1.4 per cent on that. We have detected very little measurable difference in spinning sweeps, if any.

Chairman: How about you, Mr. Thompson?

Mr. Thompson: I don't have an accurate percentage figure that I can give. It is higher, though. We think we have a little reduction in sweeps and in overhead waste, fly, etc.

Mr. Ware: We have about two or three per cent. We haven't noticed any reduction in spinning sweeps.

Chairman: Are there any questions from the floor on waste? If not, let's go on to maintenance, under which there are two questions. (1) Are you having any particular maintenance problems with the vacuum system? (2) If so, what? What is your experience as to that, Mr. Ware?

Mr. Ware: We have had none so far.

Mr. Thompson: We did have some trouble with keeping the screens clean at first, but we've just about got that eliminated now. That's the only thing.

Mr. Bodie: We have had very little trouble with it. We have had one of our units go out once in a while, but it has been a very small problem.

Chairman: Give us your experience, Mr. McClure. Have you any particular maintenance problems?

Mr. McClure: None to speak of.

Chairman: Are there any questions from the floor on maintenance? (No response.) Gentlemen, our time is up. If any of you wish to discuss vacuum scavenger systems further, feel free to stay as long as you wish.

Questionnaire

The following are the results of the questionnaire sent out to mills in South Carolina with 15 mills answering:

I. Types of System

- (A) What type vacuum system are you using?
- (1) Unit—7 mills
 - (2) Central air system—5 mills
 - (3) Both central air and central material recovery systems—2 mills
- (B) Are you considering either of the above?

One mill said "yes"—unit type—reason for considering unit type is that it has been proven that other types are not generally accepted.

- (C) What is the direction of discharge of unit type?
- (1) Straight up—2 mills
 - (2) 90° up—2 mills

II. Humidification

- (A) What type humidification do you use with vacuum system?
- (1) Refrigerated air change—3 mills
 - (2) Regular air change of various makes—8 mills
 - (3) Atomizers—2 mills
- (B) What relative humidity is needed for vacuum system?
- (1) 35% to 40%—1 mill
 - (2) 40% to 45%—4 mills
 - (3) 45% to 50%—2 mills
 - (4) 50% to 55%—4 mills
 - (5) 55% to 60%—1 mill
- (C) Do you have any variation in humidity from head to foot end of frame? If so, how did you overcome the variation?
- (1) Yes—4 mills
 - (2) No—5 mills
 - (3) Mills that have variation have not overcome it yet.
- (D) Do you feel that some system of air change is necessary to performance of vacuum system? Why?
- (1) Yes—3 mills
 - (2) No—3 mills
 - (3) Do not know—3 mills
 - (4) Reasons given for need of air change: (a) dissipate heat from motors and exhausted air; (b) more even humidity—helps prevent lapping.

III. Drafting System

- (A) What type drafting system are you using with vacuum system?
- (1) Roberts and Rieter—1 mill
 - (2) Saco-Lowell Duo-Roth—1 mill
 - (3) Whitin and Roberts High Draft, center suspension—1 mill
 - (4) Whitin Cleanign—3 mills
 - (5) Whitin Superdraft—1 mill
 - (6) Casablanca—3 mills
 - (7) Whitehead—1 mill
 - (8) Saco-Lowell Roth—1 mill
- (B) Do you use anti-friction top rolls or solid rolls?
- (1) Anti-friction—5 mills
 - (2) Solid—8 mills
 - (3) Both—1 mill
- (C) How often do you oil top rolls?
- (1) None—6 mills
 - (2) Twice a week—5 mills
 - (3) Every three weeks—1 mill
 - (4) Every two weeks—2 mills
- (D) Do you find it necessary to add more top roll weight for vacuum system?
- All mills reporting say "no."

IV. Clearers

- (A) What type top clearers are you using with vacuum system?
- (1) Revolving—13 mills
 - (2) Both revolving and flat—1 mill
- (B) Have you tried any variations in revolving clearers to overcome top roll laps?
- (1) No—10 mills
 - (2) Yes—3 mills
- (C) What types of variations in revolving clearers have you tried?
- (1) Off center pins for front clearers—2 mills
 - (2) Off center pins and traversing clearers for front line—1 mill
- (D) Which did you find to be most successful?
- (1) Off center pins—1 mill
 - (2) Straight pins—2 mills
- (E) Are you able to reduce frequency of picking flat clearers with vacuum system? How much?
- (1) Yes—1 mill
 - (2) Yes—10%—1 mill
 - (3) Yes—33%—1 mill
 - (4) No—1 mill

V. Top Roll Cots

- (A) What type cot are you using on vacuum system with:
Revolving Clearers:
(1) Armstrong J-490—3 mills
(2) Armstrong 728—4 mills
(3) Armstrong J-490 and 764—3 mills
(4) Armstrong J-490 and 728—1 mill
(5) Dayton SG-60—3 mills
Flat Clearers:
(1) Armstrong 727—1 mill
- (B) What type top roll do you find best for reducing top roll laps with vacuum system?
(1) Armstrong J-490—7 mills
(2) Dayton SG-60—3 mills
(3) Armstrong 728—2 mills
(4) Armstrong 764—1 mill
- (C) If you are experiencing top roll laps with vacuum system, do you find they go around top roll when end breaks or are they being lost from vacuum control later?
(1) When end breaks—4 mills
(2) Lost from vacuum control later—2 mills
(3) Both—3 mills
(4) No trouble—1 mill
- (D) What per cent top roll laps to total ends down are you experiencing with vacuum system?
(1) $2\frac{1}{2}\%$ to 5% —5 mills
(2) 5% to $7\frac{1}{2}\%$ —2 mills
(3) $7\frac{1}{2}\%$ to 10% —1 mill
(4) 10% to $12\frac{1}{2}\%$ —1 mill
(5) $12\frac{1}{2}\%$ to 15% —2 mills
- (E) What did you do to improve top roll laps?
(1) Shortened roving traverse
(2) Set trumpets and flutes
(3) Proper buffing
(4) Proper oil application at picker on stock
(5) Conditioned room to stock
(6) Dusted powdered mica on rolls
(7) Used softer, more pliable, bigger diameter cot with static inhibitor
(8) Reduced humidity
(9) Maintain proper settings

VII. End Breakage

- (A) Do you find that vacuum system reduces ends down?
(1) Yes—10 mills
(2) Do not know—1 mill
How much?
(1) 5% to 10% reduction—2 mills
(2) 15% to 20% reduction—2 mills
(3) 20% to 25% reduction—2 mills
(4) 50% reduction—1 mill
- (B) What are your yarn numbers and ends down running with vacuum system?
- | | |
|------------------------------|----------------------|
| 50 (27)—60 (27) | 30 (42.9) |
| $31\frac{1}{2}$ (39) | 8 to 35 (20) |
| $31\frac{1}{2}$ (35)—41 (30) | 31 (25) |
| $25\frac{1}{2}$ to 42 (20) | 21 W (21)—31 W (30)— |
| 31 (18)—40 (20) | 23 F (27)—37 F (20) |
| $31\frac{1}{2}$ (35) | 31 W (38)—38 F (33) |
| 30 (40)—15 (30) | 31 (26)—40 (26) |

Note: First figures are yarn numbers, figures in parenthesis are ends down per thousand spindle hours.

- (C) Did you find a change in traveler weight necessary for vacuum system? How much?
(1) No—10 mills
(2) Yes— $\frac{1}{2}$ and 1 number depending on size of yarn and condition of rings.

VII. Cleaning

- (A) Does vacuum system create a problem with you as far as dirty steel rolls are concerned?
(1) Yes—11 mills
(2) No—1 mill
- (B) How are you coping with this problem?
(1) Proper flute settings and proper direction of air from frame cleaner

In preparing for the Spring meeting of the South Carolina Division of the Southern Textile Association, Joe N. Jenkins, manager of the Addison Plant, Kendall Cotton Mills, Edgefield, S. C., chairman of the division, mailed questionnaires to a number of South Carolina mills. Here are the results of that questionnaire.

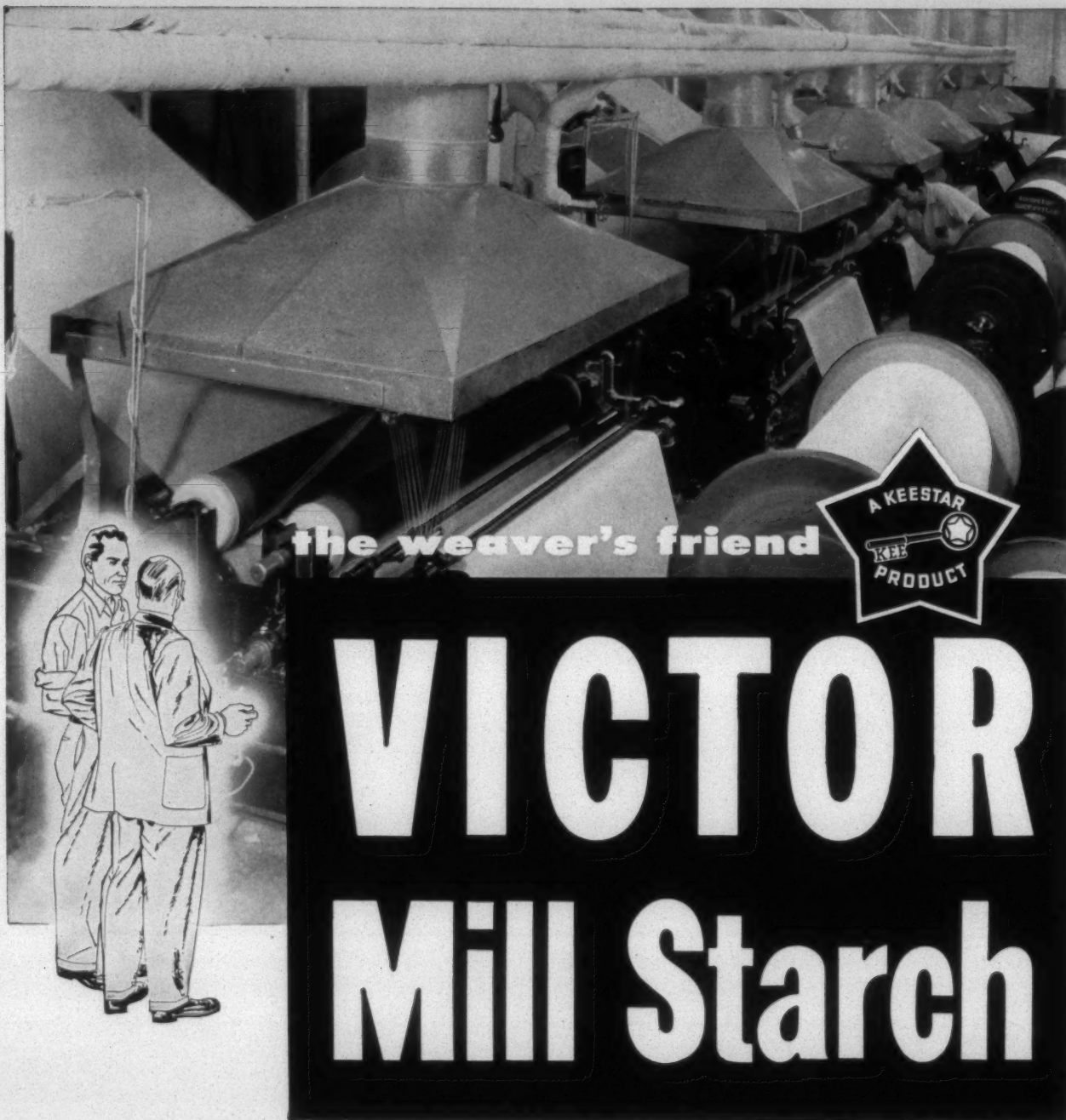
- (2) Have a picking schedule
(3) Spinners clean daily
(4) Increase cleaning frequency
(5) Clean on regular cleaning cycle and brush front rolls every eight hours
(6) Spinners clean with brush
(7) Clean steel rolls oftener
- (C) What method do you use to clean flutes on vacuum system?
(1) Use brush and whiting
(2) Roll cleaners do with waste
(3) Carbon tetrachloride and swab
(4) Wire with half moon on end covered with felt
(5) Long handle brush and cloth
(6) Scrub with hard bristle brush
(7) Brush every eight hours
(8) Wipe off flutes with waste
- (D) Have you found that you can reduce roll picking with vacuum system?
(1) Yes—7 mills
(2) No—3 mills
How much?
Three mills reduced roll picking 80% along with anti-friction rolls
Two mills reduced roll picking 50%

VIII. Waste

- (A) What per cent scavenger waste are you having with vacuum system?
- | | |
|-------|-------|
| .80% | 1.70% |
| 1.45% | 1.00% |
| 1.50% | .83% |
| .89% | 1.90% |
| 1.20% | 1.90% |
- (B) How does this compare to conventional spinning frames?
(1) No difference—1 mill
(2) Slightly higher—2 mills
(3) Higher by .72%—1 mill
(4) Double—1 mill
- (C) Have you detected any measurable reduction in spinning sweeps?
(1) Yes—4 mills
(2) No—4 mills
(3) Slightly—1 mill
(4) Yes—25%—1 mill
(5) Yes—.438% of total waste—1 mill
(6) Don't know—1 mill

IX. Maintenance

- (A) Are you having any particular maintenance problems with vacuum systems?
(1) Yes—10 mills
(2) No—4 mills
- (B) If so, what?
(1) Twisted waste (trying to correct with baffles in collector box)—2 mills
(2) Motors and fan units—1 mill
(3) Warped flutes—2 mills
(4) Weak springs—2 mills
(5) Orifice tube plug hard to set right, after being worn or bent—1 mill
(6) Dirty screens—1 mill
(7) Keeping flutes properly set—1 mill
(8) Cleaning collector box screen where blower track on creel—1 mill



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Warp Preparation & Weaving

Alabama Textile Operating Executives Discuss

Slashing And Weaving Problems

By HARWELL HOWARD

A big crowd of Alabama Textile Operating Executives, and a goodly number of interested textile men from out of the state, met at Thach Auditorium on the Alabama Polytechnic Institute campus in Auburn, April 28, to swap shop talk about slashing and weaving problems.

Twenty-one member mills representing 1,119,268 spindles (plus one associate member of the organization) sent in answers to questions which had been selected for discussion by the group's executive committee. Cleveland L. Adams, School of Textile Technology, A.P.I., and secretary-treasurer of the A.T.O.E., called the answers "the best responses yet."

George Harris, assistant manager of the Fairfax Mill of West Point Mfg. Co., led the discussion on the four main questions about slashing. The first discussion, divided into four parts, was about the mills' experiences with rubber or synthetic-covered squeeze rolls compared with wool blanket and yarn-wound rolls. The first two parts of the question called for opinions as to whether the synthetic rolls were (a) satisfactory in front or finisher position; and (b) more satisfactory in back position. About half of the mills reported no experience or did not comment on (a).

Mill D found that the synthetic squeeze rolls give a constant uniform pick-up throughout set and do away with all blanket marks when used on smooth size rolls that do not have scores, pits or dents. But this mill found them unsatisfactory on uneven size rolls. The rolls used by this mill are made by Dayton Rubber Co. One roll, in use about six months, has just been buffed for the first time. Mill F, with a roll eight inches in diameter, thought it would be satisfactory with sufficient additional weight.

Mill G did not like the synthetic rolls in the front position "because of the glazing of yarn (colored)." This mill added that in the front "we have to use wool-covered squeeze rolls to get a good dressing job." Mill P was not too happy with the results it was getting, calling them "only fair." A wool blanket or a yarn-wound roller would dress the yarn better, this mill reported. All the operators who had had experience with synthetic rolls in the back position appeared to agree that they were more satisfactory.

Mill G, mentioned above as not liking the synthetic rolls in the front position, reported that "the rubber-covered squeeze roll on the back of the size box does a very fine job of dressing. . . . In using the rubber-covered squeeze roll on back of size box in lieu of wool blanket-covered roll, we find that we do not have to alter the speed when slashing the same style."

Mill J's synthetic roll, eight inches in diameter and weighing 450 pounds, in the back position was run for two years

before it was rebuffed and has done "a good job." Mill R's synthetic rolls, by Dayton, are satisfactory in both positions. The back roll diameter is $5\frac{3}{4}$ inches, density $2\frac{1}{2}$ inches, buffing schedule 24 months. Mill U, using V342D Dayton rolls, finds them satisfactory in either position.

The pounds pressure needed on each type of roll for front and back positions was the subject of the third part of this lead-off question. Mill B answered 750 pounds on finisher rolls and 540 pounds on back rolls. Mill G said that it did not use pressure, "just roll weight." Mill I, running its rolls on slashers running terry and towel goods, doesn't add pressure to its rolls either. Mill L applies 1,020 pounds pressure to the front roll and 960 pounds to the back one; "these pressure are for 72-inch rolls, and include the weights of the rolls."

The last part of the first question was: "Is pneumatic loading satisfactory on synthetic rolls?" Most mills reported no experience but the few that did use it found it satisfactory.

The next question on the general subject of controlling stretch on slashers also had several parts. All but two of the mills reported their methods of testing this stretch, which was the first part of the question. Mill A checks "from back section beam to front loom beam," and has had some checks on each section beam, which are controlled by weights. Mill B checks "from roll at back of size box to delivery roll at front of slasher."

Mill C tests "with two yardage counters running at the same time." Its test is on wet yarn and this mill tests at only one point, "from entrance roll at back of size vat and delivery roll at front." Mill D's method: "We have yard per set from warper and use a yard counter on the delivery roll to check yardage slashed against yardage put in on each set and keep the delivery roll covered with cloth to keep a constant stretch from set to set."

The thorough method of testing stretch followed by Mill I is from "back beam to front end; back beam to front section beams; around dry cans. From size box to front ends, we use yardage counters at each checking point desired and then figure percentage of stretch per 100 yards run."

Mill V uses the Veeder-Root counter to measure stretch from the back of the size box to the front delivery roll, and occasionally measures from the back beam in the creel to the loom beam on the front of the slashers.

In answering the next question about what was considered the proper stretch on slashers, the answers ranged, almost unanimously, between one and two per cent. However, Mill I, while reporting $1\frac{1}{2}$ per cent on dry warp, went up to $2\frac{1}{2}$ per cent to $3\frac{1}{2}$ per cent on wet warp. Mill O reported

1½ per cent to two per cent for cotton, and five to six per cent for rayon.

Mill C explained why it felt that 1½ to two per cent was the proper stretch this way: "Below 1½ per cent stretch, the yarn has a tendency to roll up between the size vat and drying cylinder, causing broken ends at the lease rods. This results in stuck ends on the loom beam. When the yarn is stretched over two per cent, we find excessive loom stops, marked decrease in warp tensile strength of cloth and an effect not desirable in the soft filled sheetings and napped flannels which we run. The effect of stretch is obvious from the results of tensile strength tests made on cloth. The cloth had been made of warp yarn slashed at 2¼ per cent and 1½ per cent stretch. One style was 14 per cent stronger, another was 16 per cent stronger and still another was nine per cent stronger, when slashed with 1½ per cent stretch applied. These tests were run, using a Scott tensile strength tester, and were under controlled conditions."

The third sub-question on the general question about mill experience in controlling stretch on slashers asked for the frequency with which stretch on slashers was checked. Most of the answers fell into the category of once a week, once a shift, or each set. But Mill B reported "about once a year." In checking stretch on each slasher each week, Mill R said that since it had a variety of numbers and ends it rotated and checked different styles each week.

Answers to the next question on "What effect does excessive stretch have on weaving efficiency and on cloth?" left little room for argument that it lowered weaving efficiency and damaged cloth. Mills A and B were in agreement that excessive stretch destroys the elasticity of the yarn and causes more loom stops. Mill T called excessive stretch "the main cause of breaks at the loom whip roll. It also causes laps and crossed warps due to ends out of place." This mill also said that it "affects the shrinkage in the finishing of the goods."

The last question dealing with controlling stretch on slashers was "Do you have a method of setting or adjusting slashers so you can insure proper stretch? Explain in detail." Mills H and K reported using Reeves stretch control, which can be manually adjusted to give any desired stretch. Mill B uses P.I.V. drive "where creels are synchronized with delivery to control speed at front and back." Mill O also has P.I.V. stretch control; a numbered dial wheel makes it possible to see what the range of stretch control is.

Other answers to this question were: Mill A—"Our section beams run in a bearing on each journal and they are weighted." Mill D—"By building up on delivery rolls using layers of cloth." Mill E—"Wrap cloth around delivery roll." Mill I—"We have two slashers equipped with tension controls; section beams in the creel are weighted and weights taken off as sets run out, all manually operated and controlled. Close checking on this is necessary to prevent excessive stretch." Mill T—"Only by increasing or decreasing diameter of rolls"; this mill has an Uxbridge rheostat control. Mill V has two slashers with Westinghouse multi-motor drives on which it sets the stretch with an electrical rheostat. On its other slashers, the mill adjusts the stretch with variable Reeves drive on the side shaft.

The advantages of using viscometers, homogenizers and other improved methods over regular conventional methods

of cooking size was the next, and third, main topic of discussion on slashing. Here are the three main parts to the question and a cross-section of the answers to them:

(a) "Does viscosity affect type and weight of squeeze rolls?" Many of the mills were unable to reply to this question because of lack of experience with improved methods. Mill T, which uses a viscometer to show the viscosity of the size after cooking and not as a controlling factor in cooking of size, does not vary its type or weight of squeeze rolls. According to this mill, "We find that roll weight has to be unusually high to affect size content regardless of viscosity. An extreme change in roll types such as cork would necessitate a lower viscosity."

(b) "What methods are used to determine or control the viscosity of the size mixture? State type instruments used." This question elicited the following answers: Mill B—"close checks are maintained on contents of size mix and preparation of mix." The only control of Mill F is "close observance of measuring ingredients, cooling and homogenizing. We occasionally check viscosity with a four-ounce dipper with a 3/16-inch hole in base by time taken for it to run empty." Mill I, which has an electric Norcross viscometer on one slasher only, controls viscosity "by constantly checking on size maker, scales, instrument controls, temperatures, etc." Mill T, using a standard cooking process with homogenized pressure, has a Norcross viscometer for determining the viscosity of size after cooking. Mill V uses the "Brown instrument clock (or control) to control our heat (and viscosity) in our vats and kettles."

Under the third part of this same question on the advantages of using such improved methods as viscometers and homogenizers instead of regular conventional methods of cooking size were five sub-questions. All dealt with the improvements to be expected from using homogenized size and were as follows:

(1) "Is there more pick-up than on size made from thin boiling starch?" The "ayes" seemed to have it here. One mill reported "about the same." Mill O said "slightly more," depending on size formula. Mill B said "thin boiling starch should give better penetration."

(2) "Does it shed as much on the slasher and loom as regular corn starch?" About half of the mills did not answer this. Opinions were divided among the ones that did reply: Mill B—"The better penetration of size will give less shedding at slasher and looms." Mill I—"It sheds more." The opinion at Mill L was that homogenized size reduces shedding. Mill N—"Same, so far as we could tell." Mill O—"Slightly more." Mill S—"We changed from thin boiling starch cooked the conventional way to pearl starch homogenized with the same shedding and weaving effects."

(3) "Does it penetrate the yarn as well as regular corn starch size?" Less than half the mills came up with an answer to this; most of those that did replied in the affirmative.

(4) "Does it give higher weaving efficiency than thin boiling corn starch?" Again, less than half the mills answered. Replies ranged from "yes" to "no appreciable gain" to "no difference" to "no." Mill B said that "thin boiling starch should give better penetration which should result in better weaving efficiency."

(5) "Is there any advantage in the heat exchanger over conventional homogenizing?" None of the mills answered this.

The fourth and last question in the slashing phase of the



Adams, Warren, Brown, Alford, Smyth

Alabama Textile Operating Executives new officers are shown discussing the forthcoming year following their election during the group's annual Spring meeting at the Alabama Polytechnic Institute. They are: Cleveland L. Adams, head of textile technology at A.P.I., re-elected secretary-treasurer; Calvin Warren, Russell Mfg. Co., Alexander City, director; C. W. Brown, Shawmut Mill of West Point Mfg. Co., Shawmut, director; R. L. Alford, Alabama Mills, Birmingham, vice-chairman; and Oliver Smyth, Pepperell Mfg. Co., Opelika, general chairman. John Quinelle of Avondale Mills, Sycamore, new director, was not present.

discussion asked for experiences at the mills with multi-motor slasher drives. It was in four parts. Ten of the mills answered "no experience" or "no comment" to all parts of this question.

(a) "Is there an increase in slasher efficiency?" The answers to this were in solid agreement that there was greater slasher efficiency. Reasons cited were: Mill A—"A uniform warp from start ups all the way through warp." Mill B—"A considerable increase in yardage on loom beams." Mill R—"Less down time for maintenance." Mill T—"More constant moisture content."

(b) "Can you maintain better quality warps throughout the entire set?" There was solid agreement to this question, too. One mill reported that more even tension resulted all the way and guesswork and broken ends were eliminated. Mill R said that better quality warps were maintained throughout the set because of better tension control.

(c) "By what method can you justify expenditure for this drive, i.e., whether through lower cost on slashing or increased weaving efficiency?" There was agreement in answers to this question that both lower cost on slashing and greater weaving efficiency justified the purchase of this drive. Specific justifications presented by some of the mills were: Mill A believes that it pays "on start ups and evenness throughout the set. On our drive we have an even pull on the yarn all the time." Mill O—"Puts more yarn on loom beam which means fewer warp outs; less adjustment of tension on warp at loom; less waste." Mill R—"Lower maintenance cost, more yards per loom beam, increased slasher speed." Mill S—"Ten to 12 per cent more yardage per beam."

(d) "Are slasher speeds increased? Give maximum speed." The "ayes" had it on this question. Mills reporting "Yes" included Mill I—"Slasher speeds were increased from 117 ounces per minute to 228 ounces per minute. We run our heavy sets (5,800 ends 14½/1 yarn) about

30 yards per minute." Slasher speed at this mill is about 70 yards per minute, but the slashers are not run that fast. Mill N—"We increased approximately 20 per cent to 60 yards per minute on double headway and 80 yards per minute on single headway." A mill answering "no" to this question stated "We have moistograph controls on our slashers and we do not get any more speed by using the multi-motor drive."

College Seniors Honored

Between the end of the slashing discussion and the beginning of the weaving discussion, Holmes Floyd, manager of Opelika Cotton Mills, and chairman of the board of the Alabama Cotton Manufacturers Association, presented awards to four of five outstanding seniors in the Auburn School of Textile Technology. Mr. Floyd told the students that the textile industry was "the best industry. It gets next to you and you just talk shop all the time."

The award winners were: James R. Eichelberger, Roanoke, Ala., who received the National Association of Cotton Manufacturers' Student Honor Award for having maintained the highest scholastic standing during four years in college. He was given a Student Honor Medal. Guy H. Kaylor, Talladega, Ala., was presented the Chattahoochee Valley Phi Psi Alumni Award, which is given annually to the best all-around senior in textile technology. His name is inscribed on a plaque hanging in the textile building.

William Francis Dolan, Cedartown, Ga., was presented the Phi Psi Award, given annually to a senior in textile technology on the basis of scholarship, leadership, initiative, personality, loyalty and courtesy. The award, in this case, was a billfold and leather case set; inside each, the coat of arms of the fraternity and the recipient's name were embossed. John R. Spivey, Roanoke, Ala., was given the Alabama Textile Operating Executives' Committee award for leadership and service. This award is given annually to the student who has shown outstanding leadership ability in campus and other activities throughout his college career. The award to this winner consisted of his having his name engraved on a plaque which hangs in the lobby of the textile building.

A fifth outstanding senior, Henry Ellis Austin, of Wetumpka, was in Oklahoma and unable to be present for the award presentations. He won the American Association of Textile Technologists Award, given annually to a textile senior on the basis of his scholarship, technical ability, industry, judgment, leadership, reliability and ability to work with others. The award to this winner consisted of his having his name inscribed on a plaque hanging in the textile building, and an individual plaque of his own.

Wendell Morriss, manager of Avondale Mills, Birmingham, led the discussion on weaving. The first discussion was in two main parts and the first of these two main topics was: "Discuss methods used for cleaning weave room, ceilings, light fixtures and humidity systems."

There were many answers to this question, with most of the mills reporting weekly cleaning of ceilings, light fixtures and humidity systems. Mill N, one of the mills on this schedule, added that its "jacquard machines are blown off every three weeks"—on the weekend. "Light fixtures are washed every six months. In addition to weekly blowing off, air changer ducts are washed one time per year."

Methods used included the following: Two men with 90

WARP PREPARATION & WEAVING

looms each blow off looms, sweep, take up quills, doff cloth, blow off and grease looms when warps are out, at Mill A. Mill F—"Weave room floor is cleaned by sweepers with brooms on a daily basis and irregularly buffed and waxed by the Tennant system. Ceilings, posts and windows are cleaned with brooms." At Mill O, an overhead cleaner, on a platform scaffold, uses a long handle waste mop, broom, brush and rags to clean light fixtures, pipes, etc.

At Mill P, "Ceilings are cleaned once each week by brushing down with a long handle broom. Light fixtures are cleaned once every two months. A narrow ladder is used that has an attached holder for tubes, starters, cleaning detergent, wipe rags, etc. Any reflectors found rusting are reported and taken down and painted. This is done by electrical department. Humidity systems are cleaned as follows: control boxes are blown out once each eight hours, pipes are wiped once each week, fans to evaporative cooling system are blown out once each week, heads are cleaned as needed."

The second topic of discussion, under the first main question about weaving, was about the system of loom cleaning in use in the mills. It had four sub-topics, the first of which asked what the duties of cleaners (or blowers) were.

Here are some of the answers: Mill A—"420 looms one man per shift, blows off looms only on 420 looms." Mill B reported that one crew of cleaners only blows looms off daily, while another crew blows looms off at warp out and oils the looms. At Mill C, duties consist of blowing off looms and then sweeping up lint. Mill E—"Clean looms and take up quills." Mill F—"Loom cleaner wipes reed caps and harnesses with hand cloth then blows lint from other loom parts, and from under loom with compressed air on regular schedule on all shifts. Another type of cleaning job is used on one shift cleaning looms at warp out by spraying with cleaning fluid and blowing parts clean by compressed air. When no warps are out this cleaner cuts yarn twisted around loom parts." Mill G with 1,362 looms uses seven loom cleaners each shift who "use air to clean looms, and they blow off the entire loom, including drop wires." At Mill H, in addition to blowing off looms, cleaners "keep strings off shafts, take up bad filling and clean looms with loom cleaning chemical when warp is out."

The second sub-topic about loom cleaning dealt with the frequency with which it was done. Most of the mills answering this said every 24 hours. Mill M said "looms are cleaned only as warps run out," and Mill R, "at warp out, which will average every 16 to 18 shifts." At Mill P, "Brush fronts twice each week, blow out drop wires twice each week, blow off top of looms once each week (arches, strapping, etc.) apply solvent and blow off once each week, blow off ends of looms twice each week, blow out from under looms once each week, mop under looms once each week. Our cleaners are responsible for keeping all looms on their layout clean at all times as looms are not cleaned at warp out."

The third and fourth sub-topics under this question on loom cleaning asked for (3) number of looms cleaned per cleaner per shift; and (4) man-hours of cleaning per loom per 24 hours (not to include any overtime and sweeping or overhead cleaning.)

Mill B answered "192 looms per shift; 120 man-hours

per loom." Mill E—"150 looms; 0.0533 man-hours per loom. (Note: cleaner takes up quills on looms he cleans which will cut man-hours per loom approximately $\frac{1}{2}$.)" Mill G—"65 looms; 5.21 mins. per loom per 24 hours." Mill H—"155 looms; .19 man-hours per loom." Mill J—"Loom cleaners clean and oil about 18 looms per shift; Each loom gets seven minutes of cleaning time or .116 man-hours of cleaning time per loom per 24 hours." This mill also stated that "Loom blowers blow off 202 looms per shift," and that "Harness cleaners clean the harness and reed caps on 160 looms per shift."

Mill K—"80 looms per shift; .31 man-hours per loom." Mill O—"Number of looms cleaned per blow-off hand per shift average 130 looms; man-hours of cleaning per loom per 24 hours is approximately four minutes." Mill P—"Looms cleaned per cleaner—137; man-hours of cleaning per loom per 24 hour period, 11 minutes." Mill R—"18 to 26; At warp out—one-third hour. All looms are blown off once every 24 hours at drop wires, harness and reed, 16 man-hours per 728 looms." Mill S—"125 looms; 0.75." Mill T—"87 looms per cleaner to clean and 260 to sweep around." Cleaning and sweeping are combined at this mill where approximately 22 looms are cleaned per man-hour. Mill V—"221 to 331 depending on width of loom; 1.45 to 2.17 minutes depending on width of loom plus warp man cleaning of ten minutes for each warp out."

The second main question on weaving asked for accounts of mill experiences with nylon monofilament replacing bristles and fur in the shuttles. Ten of the mills did not answer any of the three parts of this question.

Opinions were divided on the first part of the question which asked mills to tell what effects on quality and loom stops, if any, had been observed after nylon monofilament had replaced bristles and fur in the shuttles. One mill reporting satisfactory results on heavy weaves said that loom stops had apparently decreased, and "quality mispicks and broken picks have improved." Another mill reported a satisfactory nylon replacement of bristle but said that no satisfactory replacement for the fur had been found and no substantial change in quality or loom stops had been noted. Another mill expressing satisfaction with nylon monofilament said: "We have a more even tension and less ballooning of filling in the shuttle with less filling breaks and less loom stops from the filling stop-motion fork hanging on, thus, improving quality and efficiency."

However, Mill P reported dissatisfaction with this replacement saying, "Our quality has been lowered in that we had more mispicks and broken picks in the cloth with approximately one per cent more stops." Mill K reported "very little experience with nylon monofilament," and added "we did run into trouble running 60-pound test nylon filament set at 45 degrees running 23s filling. It put too much tension on the filling. By changing the degree and using three rather than four loops we corrected this."

The second part of this question about nylon monofilament replacing bristles and fur asked for "size strand, yarn number, package size and method, angle and location in installing the monofilament." Some of the varied answers to this: Mill E—"30 pounds test line on 41s filling. Nylon was put in shuttle at 45 degree angle on each side of shuttle, letting the loop just touch the quill between first and second groove in quill." Mill J—"We use .045 strands of monofilament on 15/2 and 6 1/2 to 9 filling. Our bobbins are 8 3/4 inches. We drill a hole at the top and bottom of the front

and back of our shuttles. About $1\frac{7}{8}$ inches from the tip of the quill, we put a loop of nylon monofilament in, letting it lay on both sides of the quill around the first ring below the brass tip of the quill." Mill L—"We used 40-pound test leader material. Our yarn is 34s. We use $8\frac{3}{4}$ -inch quills and fill them to a diameter of $1\frac{5}{16}$ -inch. We looped the nylon and installed it at about a 45 degree angle so as to make it put about the same pressure near the end of the quills that bristles do."

The last part of this question dealt with the comparative durability of nylon monofilament to bristle and fur. The consensus of opinion seemed to be that the nylon lasted longer. One mill said it was "50 per cent more durable than bristle." Another said it lasted "about two or three times as long as bristles." Mill I, using an $8\frac{3}{4}$ -inch quill with a $1\frac{5}{8}$ -inch package, went into more detail saying, "We find that the rayon friction will last about twice as long as the horse hair bristle and fur, with the exception of the first two strands near the tip of quill which we find will burn out or wear in two in about a week, running two shifts. We replaced these nylon loops with horse hair bristles and use the nylon in the rest of the shuttle. We find this to be very satisfactory." At Mill P, where the replacement of bristle and fur with nylon had not been satisfactory, "the heavier or 50-pound test lasts longer but cracks badly." And Mill L said that "nylon wasn't durable enough. It seemed to burn in two where the filling rubbed against it."

The third weaving question, with three sub-questions, dealt with comparisons between portable and stationary tie-in machines. Ten of the mills did not reply to the first sub-question, "Can you comb patterns as straight with portable?" Four mills answered this in the negative, while six mills replied that they could comb patterns as straight, or straighter, with portable machines. Two other mills answered "yes" with qualifications: Mill K—"We find that we can comb patterns as straight with the portable only by using lease rods and having straight patterns to start with on loom." Mill Q—"Yes, provided equal care is used as would be used on a stationary machine. The warps tied on a portable machine should be as straight as on a stationary machine. This is especially true on the new type full-width machine where the new warp is clamped and laid across the warp frame in the same manner as it is on the stationary machine." At Mill P, stationary tying has been gradually discontinued for these reasons: "more expensive, less damage to patterns, harness, drop wires, reeds, etc."

The next sub-question asked for comparisons of the waste made by both portable and stationary tie-in machines. The answers broke down this way: "no comment," 11 mills; "no difference, or the same," six mills; "less waste with stationary," three mills; "less waste with portable," one mill; and this reply from Mill Q: "No waste is made on the loom side either by the portable or a stationary machine because after the warp is woven as far as it can be woven, we still have plenty of yarn left to tie on that side, and if tape is used on the end of the new warp, it is only necessary to make about 12 to 15 inches of waste in the new warp by either portable or stationary machines. In other words, the amount of waste is identical."

Following are two of the answers to the third sub-question on tie-in machines asking mills to state the methods they used to clean looms with portable machine where pattern is not removed when warp runs out: Mill Q—"This method

varies with the type of fabric being woven. Normally, on cotton work the loom is blown off and accumulated waste blown from the heddles and drop wires. In some cases, such as filament rayon where cleanliness is essential, the harness frames and heddles are wiped with waste saturated in Varsol or some other cleaning agent." Mill V—"Pattern is cut out, leaving longer ends for leasing. These are rolled up to the back of the drop wires; then pattern is covered with cloth. Loom is blown off with compressed air with pattern hanging in loom."

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WARP PREPARATION & WEAVING

looms each blow off looms, sweep, take up quills, doff cloth, blow off and grease looms when warps are out, at Mill A. Mill F—"Weave room floor is cleaned by sweepers with brooms on a daily basis and irregularly buffed and waxed by the Tennant system. Ceilings, posts and windows are cleaned with brooms." At Mill O, an overhead cleaner, on a platform scaffold, uses a long handle waste mop, broom, brush and rags to clean light fixtures, pipes, etc.

At Mill P, "Ceilings are cleaned once each week by brushing down with a long handle broom. Light fixtures are cleaned once every two months. A narrow ladder is used that has an attached holder for tubes, starters, cleaning detergent, wipe rags, etc. Any reflectors found rusting are reported and taken down and painted. This is done by electrical department. Humidity systems are cleaned as follows: control boxes are blown out once each eight hours, pipes are wiped once each week, fans to evaporative cooling system are blown out once each week, heads are cleaned as needed."

The second topic of discussion, under the first main question about weaving, was about the system of loom cleaning in use in the mills. It had four sub-topics, the first of which asked what the duties of cleaners (or blowers) were.

Here are some of the answers: Mill A—"420 looms one man per shift, blows off looms only on 420 looms." Mill B reported that one crew of cleaners only blows looms off daily, while another crew blows looms off at warp out and oils the looms. At Mill C, duties consist of blowing off looms and then sweeping up lint. Mill E—"Clean looms and take up quills." Mill F—"Loom cleaner wipes reed caps and harnesses with hand cloth then blows lint from other loom parts, and from under loom with compressed air on regular schedule on all shifts. Another type of cleaning job is used on one shift cleaning looms at warp out by spraying with cleaning fluid and blowing parts clean by compressed air. When no warps are out this cleaner cuts yarn twisted around loom parts." Mill G with 1,362 looms uses seven loom cleaners each shift who "use air to clean looms, and they blow off the entire loom, including drop wires." At Mill H, in addition to blowing off looms, cleaners "keep strings off shafts, take up bad filling and clean looms with loom cleaning chemical when warp is out."

The second sub-topic about loom cleaning dealt with the frequency with which it was done. Most of the mills answering this said every 24 hours. Mill M said "looms are cleaned only as warps run out," and Mill R, "at warp out, which will average every 16 to 18 shifts." At Mill P, "Brush fronts twice each week, blow out drop wires twice each week, blow off top of looms once each week (arches, strapping, etc.) apply solvent and blow off once each week, blow off ends of looms twice each week, blow out from under looms once each week, mop under looms once each week. Our cleaners are responsible for keeping all looms on their layout clean at all times as looms are not cleaned at warp out."

The third and fourth sub-topics under this question on loom cleaning asked for (3) number of looms cleaned per cleaner per shift; and (4) man-hours of cleaning per loom per 24 hours (not to include any overtime and sweeping or overhead cleaning.)

Mill B answered "192 looms per shift; 120 man-hours

per loom." Mill E—"150 looms; 0.0533 man-hours per loom. (Note: cleaner takes up quills on looms he cleans which will cut man-hours per loom approximately $\frac{1}{2}$.)" Mill G—"65 looms; 5.21 mins. per loom per 24 hours." Mill H—"155 looms; .19 man-hours per loom." Mill J—"Loom cleaners clean and oil about 18 looms per shift; Each loom gets seven minutes of cleaning time or .116 man-hours of cleaning time per loom per 24 hours." This mill also stated that "Loom blowers blow off 202 looms per shift," and that "Harness cleaners clean the harness and reed caps on 160 looms per shift."

Mill K—"80 looms per shift; .31 man-hours per loom." Mill O—"Number of looms cleaned per blow-off hand per shift average 130 looms; man-hours of cleaning per loom per 24 hours is approximately four minutes." Mill P—"Looms cleaned per cleaner—137; man-hours of cleaning per loom per 24 hour period, 11 minutes." Mill R—"18 to 26; At warp out—one-third hour. All looms are blown off once every 24 hours at drop wires, harness and reed, 16 man-hours per 728 looms." Mill S—"125 looms; 0.75." Mill T—"87 looms per cleaner to clean and 260 to sweep around." Cleaning and sweeping are combined at this mill where approximately 22 looms are cleaned per man-hour. Mill V—"221 to 331 depending on width of loom; 1.45 to 2.17 minutes depending on width of loom plus warp man cleaning of ten minutes for each warp out."

The second main question on weaving asked for accounts of mill experiences with nylon monofilament replacing bristles and fur in the shuttles. Ten of the mills did not answer any of the three parts of this question.

Opinions were divided on the first part of the question which asked mills to tell what effects on quality and loom stops, if any, had been observed after nylon monofilament had replaced bristles and fur in the shuttles. One mill reporting satisfactory results on heavy weaves said that loom stops had apparently decreased, and "quality mispicks and broken picks have improved." Another mill reported a satisfactory nylon replacement of bristle but said that no satisfactory replacement for the fur had been found and no substantial change in quality or loom stops had been noted. Another mill expressing satisfaction with nylon monofilament said: "We have a more even tension and less ballooning of filling in the shuttle with less filling breaks and less loom stops from the filling stop-motion fork hanging on, thus, improving quality and efficiency."

However, Mill P reported dissatisfaction with this replacement saying, "Our quality has been lowered in that we had more mispicks and broken picks in the cloth with approximately one per cent more stops." Mill K reported "very little experience with nylon monofilament," and added "we did run into trouble running 60-pound test nylon filament set at 45 degrees running 23s filling. It put too much tension on the filling. By changing the degree and using three rather than four loops we corrected this."

The second part of this question about nylon monofilament replacing bristles and fur asked for "size strand, yarn number, package size and method, angle and location in installing the monofilament." Some of the varied answers to this: Mill E—"30 pounds test line on 41s filling. Nylon was put in shuttle at 45 degree angle on each side of shuttle, letting the loop just touch the quill between first and second groove in quill." Mill J—"We use .045 strands of monofilament on 15/2 and 6 1/2 to 9 filling. Our bobbins are 8 3/4 inches. We drill a hole at the top and bottom of the front

and back of our shuttles. About $1\frac{7}{8}$ inches from the tip of the quill, we put a loop of nylon monofilament in, letting it lay on both sides of the quill around the first ring below the brass tip of the quill." Mill L—"We used 40-pound test leader material. Our yarn is 34s. We use $8\frac{3}{4}$ -inch quills and fill them to a diameter of $1\frac{5}{16}$ -inch. We looped the nylon and installed it at about a 45 degree angle so as to make it put about the same pressure near the end of the quills that bristles do."

The last part of this question dealt with the comparative durability of nylon monofilament to bristle and fur. The consensus of opinion seemed to be that the nylon lasted longer. One mill said it was "50 per cent more durable than bristle." Another said it lasted "about two or three times as long as bristles." Mill I, using an $8\frac{3}{4}$ -inch quill with a $1\frac{7}{8}$ -inch package, went into more detail saying, "We find that the rayon friction will last about twice as long as the horse hair bristle and fur, with the exception of the first two strands near the tip of quill which we find will burn out or wear in two in about a week, running two shifts. We replaced these nylon loops with horse hair bristles and use the nylon in the rest of the shuttle. We find this to be very satisfactory." At Mill P, where the replacement of bristle and fur with nylon had not been satisfactory, "the heavier or 50-pound test lasts longer but cracks badly." And Mill L said that "nylon wasn't durable enough. It seemed to burn in two where the filling rubbed against it."

The third weaving question, with three sub-questions, dealt with comparisons between portable and stationary tie-in machines. Ten of the mills did not reply to the first sub-question, "Can you comb patterns as straight with portable?" Four mills answered this in the negative, while six mills replied that they could comb patterns as straight, or straighter, with portable machines. Two other mills answered "yes" with qualifications: Mill K—"We find that we can comb patterns as straight with the portable only by using lease rods and having straight patterns to start with on loom." Mill Q—"Yes, provided equal care is used as would be used on a stationary machine. The warps tied on a portable machine should be as straight as on a stationary machine. This is especially true on the new type full-width machine where the new warp is clamped and laid across the warp frame in the same manner as it is on the stationary machine." At Mill P, stationary tying has been gradually discontinued for these reasons: "more expensive, less damage to patterns, harness, drop wires, reeds, etc."

The next sub-question asked for comparisons of the waste made by both portable and stationary tie-in machines. The answers broke down this way: "no comment," 11 mills; "no difference, or the same," six mills; "less waste with stationary," three mills; "less waste with portable," one mill; and this reply from Mill Q: "No waste is made on the loom side either by the portable or a stationary machine because after the warp is woven as far as it can be woven, we still have plenty of yarn left to tie on that side, and if tape is used on the end of the new warp, it is only necessary to make about 12 to 15 inches of waste in the new warp by either portable or stationary machines. In other words, the amount of waste is identical."

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WHY

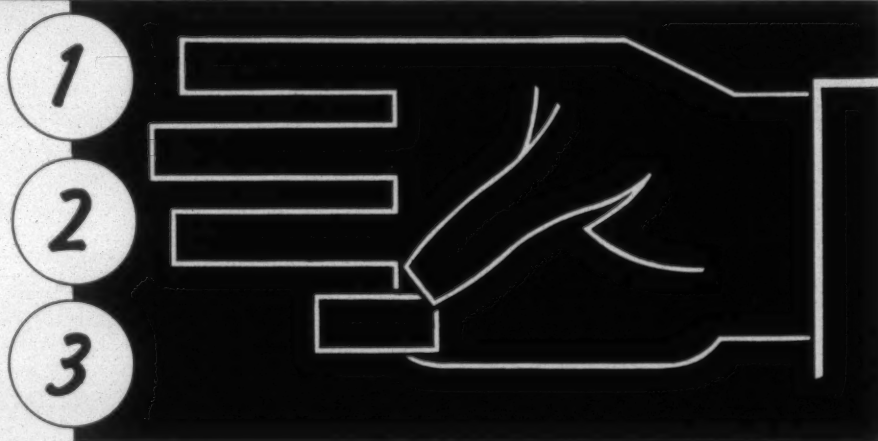
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Getting Your Money's Worth Of Wrinkle Recovery

By S. H. FOSTER, Research Department, Monsanto Chemical Co., Springfield, Mass.

CHEMICALS have been used in the finishing of cotton for a number of years. It might be said that the two have had a speaking acquaintance for some time. It is only within the last few years, however, that they have been married, with the result that the high style possibilities of cotton have been greatly enhanced. Cotton fabrics that can be washed and dried, and then require little or no ironing have an outstanding appeal to the housewife. The less housework she does, the more time she has to engage in outside activities. This should require an increase in her wardrobe—which probably means an increase in attractive cottons, as well as synthetics.

Obviously the cotton finisher is interested in maintaining a reputation as a producer of high-quality fabric. Only in this way can he be assured of repeat business. On the other hand, he is also concerned with reducing costs at no sacrifice in quality. In order to do this considerable manpower is directed toward quality control.

By the same token the producer of chemicals for finishing also takes great pains to supply a product of good and unvarying quality.

Water-soluble thermosetting resins are used today in very substantial quantities to enhance the wrinkle recovery of cotton fabric. In this situation the textile finisher is playing the part not only of the textile technologist, but the chemist as well. He is carrying out a chemical reaction between cellulose and the resin.

The textile producer controls his fabric quality by controlling carefully the conditions of yarn twist, yarn size, fabric construction, loom operation, etc. In like manner the chemical producer insures the good quality of his products by controlling carefully the conditions of the chemical reactions involved. When the textile finisher puts on the chemist's hat, he likewise must control the condition of the chemical reactions involved.

How a Textile Resin Works

The term "textile resin" is frequently used to denote the reaction products of melamine, urea or modified urea with formaldehyde. Actually most of these are low molecular weight products which under certain conditions can be reacted to form a resin or polymer. In other words, a textile resin may be reacted with itself to form a very high molecular weight infusible material. When a "textile resin" of low average molecular weight such as Resloom* M-75, is applied

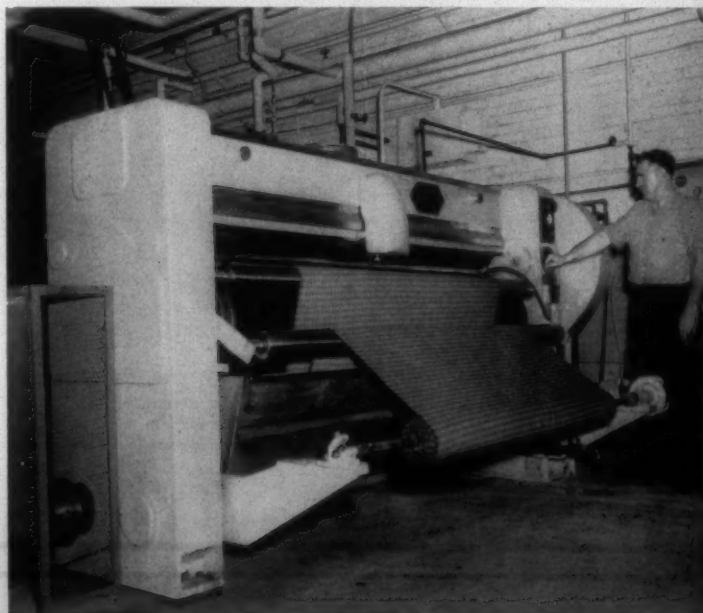
to nylon and cured, the fabric is stiffened. This is due to the "resin" reacting with itself to form a high polymer.

On cellulose, such as cotton, an entirely different reaction can occur. This is frequently referred to as a crosslinking reaction. In this case the "textile resin" reacts not with itself to form a high polymer, but with two neighboring hydroxyl groups (-OH) on different cellulose chains.

As a result of this crosslinking reaction, which takes place in the amorphous regions of the cotton fiber, the cellulose chains so bound together are no longer free to move independently of one another. Much of the evidence supports this concept of how a "textile resin" improves the wrinkle recovery of cotton.

It is seen then that two very different chemical reactions can occur on cellulose—one where the "resin" reacts with itself to form a polymer, and the other where the "resin" crosslinks the cellulose. Actually most commercially available "textile resins" react by both mechanisms. The polymer formation modifies the hand, particularly when it occurs on the surface of the fiber or yarn, while the crosslinking reaction is largely responsible for the improved wrinkle recovery. This is true of urea resins and melamine resins.

Still another factor that must be considered is the amount of polymerization that has already taken place before the



Proper padding is significant in resin treatment. Shown in operation is a Niptrol unit of Rodney Hunt Machine Co.

*registered trade mark—Monsanto Chemical Co.

"textile resin" is applied to the fabric. It is difficult, if not impossible, in the manufacture of urea and melamine resins to avoid some low polymer formation. The urea or melamine molecules are joined together chemically by the formaldehyde to form larger molecules. These are not large enough to lose their water solubility, but many are too large to penetrate the cellulose fiber. Obviously the more of these larger molecules there are present, the more will be left on the fiber surface with a resulting modification of hand. At the same time for any given weight of resin, there are fewer molecules capable of penetrating the fiber to cross link, so that one might expect some lowering of wrinkle recovery.

A "resin" which can be made without the formation of these larger molecules would be expected to penetrate into the fiber with no selective deposition of resin on the surface. In this case the hand of the finished fabric would be soft.

As examples, Resloom M-75 contains fewer of the larger molecules than does Resloom M-80, and as a result produces a softer hand than M-80. This difference in average molecular weight can be shown by titrating a dilute solution of the resin in water with a salt solution.

Resloom E-50, on the other hand, has none of the built up molecules and produces a softer finish on cotton than M-75. Since essentially all of the resin penetrates the fiber and reacts to cross link the cellulose, the wrinkle recovery with E-50 is higher than from an equal weight of Resloom M-75, which in turn gives a slightly higher wrinkle recovery than Resloom M-80, although under practical mill conditions, it would be difficult to tell the latter two apart in this respect.

Why Use a Catalyst?

As stated earlier there is considerable evidence supporting the view that crosslinking of the cellulose chains of the cotton fiber is largely responsible for its improved wrinkle recovery. To bring about this crosslinking reaction, an acid producing "catalyst" is necessary. Compounds that produce acid under the conditions of cure have usually been used. Ammonium salts, such as ammonium chloride, or diammonium phosphate, and metal halides such as zinc chloride were widely used at one time. The hydroxylated amine hydrochlorides, however, were found to minimize the danger of acid tendering, odor formation or short bath life. Catalyst AC is a "catalyst" of this type, and is used in the work discussed below.

The term "catalyst" is recognized as a misnomer, since these products are not recovered unchanged from the cured fabric. The term "accelerator" is perhaps technically more nearly correct.

Can Wrinkle Recovery Be Predicted?

Obviously there are a tremendous number of variables to be considered in producing "resin" treated cottons of high quality. Among these are all the variables of the fiber itself, and its processing to a woven fabric. Added to these are the processing variables in preparing the cloth for "resin" treatment, and applying the "resin" to the cloth.

This discussion is limited to those variables that are important to the chemical reaction between the "resin" and the cellulose fiber.

For any given "resin" or "resin" formulation, it is possible to predict with reasonable accuracy the resin solids

required for a predetermined amount of wrinkle recovery. If the optimum conditions of the crosslinking reaction are not observed, the expected wrinkle recovery may not be obtained. The work to develop the data for the preparation of this paper was carried out using 80 x 80 print cloth. Prediction of wrinkle recovery for square weaves similar to 80-square will still hold true. Accurate prediction for other weaves, particularly other plain weaves, would require additional laboratory study.

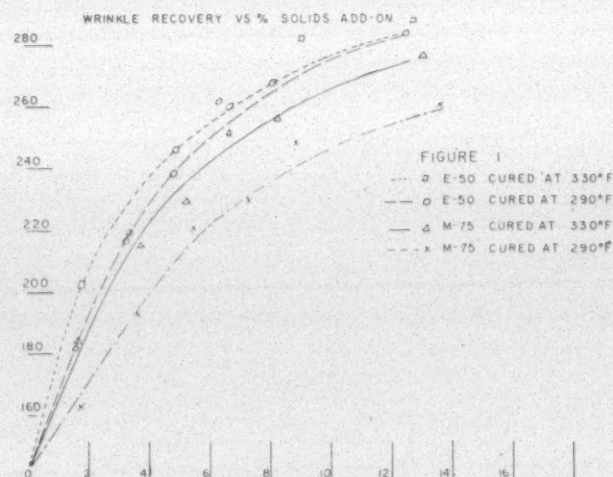
The Variables of Cure

In the following table are given the wrinkle recovery readings (warp plus fill) of 80-square cotton treated with the indicated amount of resin and 15 per cent Catalyst AC on the resin solids. Resloom E-50 and Resloom M-75 were used in this comparison.

| Resloom E-50 | | | | | |
|--|------------------|----------|--|------------------|----------|
| Wrinkle Recovery after a Refinish Wash | | | Wrinkle Recovery after a Refinish Wash | | |
| Cured 3 min. at 290°F. | Tensile | | Cured 3 min. at 330°F. | Tensile | |
| Solids On | Wrinkle Recovery | Strength | Solids On | Wrinkle Recovery | Strength |
| | W & F | W & F | | W & F | W & F |
| 0 | 143 | 81 | 0 | 143 | 81 |
| 1.6 | 183 | 85 | 1.7 | 203 | 56 |
| 3.2 | 217 | 54 | 3.3 | 219 | 47 |
| 4.8 | 238 | 43 | 4.9 | 246 | 40 |
| 6.3 | 261 | 41 | 6.7 | 260 | 33 |
| 8.1 | 267 | 40 | 9.1 | 273 | 33 |
| 12.5 | 283 | 41 | 12.8 | 285 | 32 |

| Resloom M-75 | | | | | |
|--|------------------|----------|--|------------------|----------|
| Wrinkle Recovery after a Refinish Wash | | | Wrinkle Recovery after a Refinish Wash | | |
| Cured 3 min. at 290°F. | Tensile | | Cured 3 min. at 330°F. | Tensile | |
| Solids On | Wrinkle Recovery | Strength | Solids On | Wrinkle Recovery | Strength |
| | W & F | W & F | | W & F | W & F |
| 0 | 143 | 81 | 0 | 143 | 81 |
| 1.7 | 163 | 64 | 1.6 | 184 | 58 |
| 3.6 | 193 | 62 | 3.7 | 215 | 56 |
| 5.5 | 220 | 50 | 5.2 | 229 | 46 |
| 7.3 | 229 | 52 | 6.7 | 252 | 38 |
| 8.9 | 248 | 47 | 8.3 | 256 | 42 |
| 13.7 | 260 | 43 | 13.1 | 276 | 37 |

These results are plotted in Fig. 1. It is apparent that an increase in cure temperature does not increase the wrinkle recovery of a E-50 treated fabric except at low solids add-on, while with M-75 the increase in wrinkle recovery with increasing cure temperature is marked.



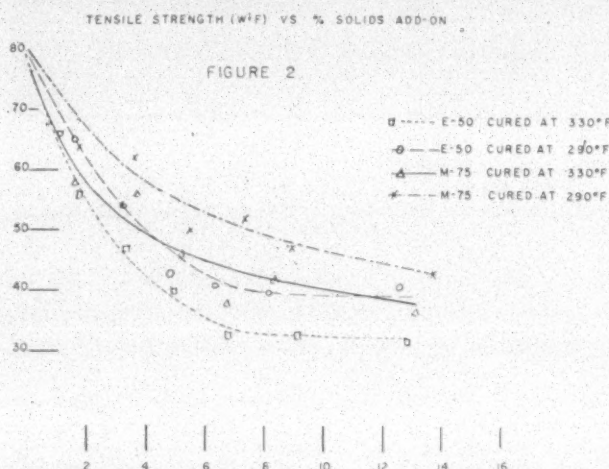
For example, with Resloom E-50 a wrinkle recovery of 240° is obtained with about five per cent "resin" solids using a 290° F. cure, and with about 4.5 per cent "resin" solids at a 330° cure. With the M-75, however, a wrinkle recovery of 240° is achieved with about nine per cent resin solids, if cured at 290° F., but about six per cent if cured at 330°.

Although there is relatively little difference in wrinkle recovery with Resloom E-50 whether cured at 290° or 330°,

less variability and better durability is achieved with cure temperatures a little above 290°. A cure temperature of 300°-310° F. has been generally found to give excellent results.

Why Does Strength Decrease?

The chemical reaction that is responsible for improved wrinkle recovery is the same reaction that brings about a reduction in the strength properties of the fiber. If durable wrinkle recovery is wanted, the strength losses must be accepted. The data for tensile strength of the four treatments described above are plotted in Fig. 2.



A number of years ago it was not an unusual practice to analyze fabric for resin retained. Such a procedure would show not only the cross-linking resin but also the resin present as an insoluble polymer. Since the polymer contributes little to the wrinkle recovery of cotton, some may have been lulled into a false sense of security, feeling that if they had enough resin on the cloth, the desired performance was assured. Others applied excessive resin, but gave an inadequate cure. This gave a degree of wrinkle recovery below what would be attained by an optimum cure, but strength properties would be better.

It will be noted that the 330° cure with Resloom E-50 improves the wrinkle recovery only very little if at all, while tensile strength is reduced. It is chiefly for this reason that the lower cure temperatures are preferable with E-50.

In a paper by R. F. Nickerson (*Dyestuff Reporter*, Jan. 23, 1950) it was pointed out that if wrinkle recovery is plotted vs. tensile strength, the points fall with some scatter around the same straight line, with tensile strength dropping as the wrinkle recovery increases. The data given in Table I are plotted by this method in Fig. 3. Although the points for E-50 cured at 330° fall generally below that for the 290° cure, both the melamine and modified urea resins fall around the same line. This type of plot re-emphasizes the fact that as wrinkle recovery increases, tensile strength will decrease proportionally.

How Much "Catalyst" for a Good Cure?

The amount of "catalyst" in the bath is also a variable that can affect the level of wrinkle recovery. Two methods of calculating the quantity to add to the formulation are being used today: (1) As a percent of resin solids (10%-25% Catalyst AC on basis of resin solids is common); (2)

As a percent of the total bath (0.5%-1.5% is usually found satisfactory). In actual practice the optimum amount of "catalyst" will depend on conditions at the particular mill. Alkalinity in the fabric is, of course, going to have a neutralizing effect on the catalyst, and must therefore be taken into consideration.

How Long for a Good Cure?

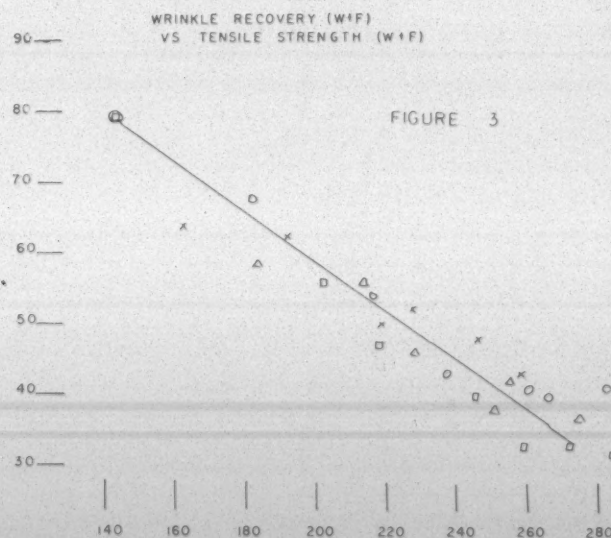
The time of cure will also affect the degree of wrinkle recovery achieved. The moisture content of the fabric entering the cure box is obviously important, since the chemical reaction of the "resin" with the cellulose will not take place until the moisture has evaporated. The weight of the fabric, its construction and yarn size must also be considered. Once the resin is cured, however, additional exposure to the elevated cure temperature will not improve the fabric properties.

Using laboratory equipment "resin" treated 80-square print cloth was dried three minutes at 200° F. and then cured for 1½ minutes, three minutes and five minutes at 310°. In all cases the wrinkle recovery was the same. In other words, under these conditions the cure was complete in 1½ minutes, and further exposure was without benefit. In this work the fabric samples were stationary in the cure box while a stream of heated air was circulated through it. Under these conditions accurate control of fabric temperature is perhaps easier than in the mill cure box where the fabric moves through a heated zone that can easily vary in temperature from one end to the other.

Summary

It may be said then that the development of improved wrinkle recovery of fabric is dependent to a high degree on a chemical reaction which requires a finite amount of time to reach completion. The rate at which this reaction proceeds will depend on the temperature at which it is carried out, in other words the cure temperature. A rule of thumb sometimes used by organic chemists is that reaction rate doubles for every ten degrees centigrade (or about 20°F.) increase in temperature. Although this can be regarded only as an approximation, it does emphasize the importance of the cure temperature in bringing about the reaction of the resin to crosslink the cellulose.

Although the "catalyst" is absolutely necessary to bring



about the crosslinking of the cellulose chains, it is critical over a rather narrow range, and it is certainly unusual to find mills using subminimal quantities in their resin formulations.

If cure temperatures, particularly with the melamine and urea resins, are below optimum, a modest increase in catalyst (0.5 per cent on the bath) will have some beneficial effect, but it will counterbalance the effect of reduced

cure temperature only partially. This effect is less pronounced with the modified ureas, such as Resloom E-50.

Obviously because of other considerations, it is inadvisable to cure at too high a temperature, since degradation of the cellulose by heat alone becomes a factor for consideration.

If then you would get the best wrinkle recovery possible from the "resin" you select, careful control of the conditions of the chemical reactions involved will do much toward helping you get the most for your money out of that "resin."

Maintenance, Engineering & Handling

How Safe Are Your Elevators?

By H. R. OTTO, General Service Superintendent, Otis Elevator Co., New York City

A lot of mills never concern themselves with elevators until they break down. Then there is always a flurry of activity to get them back into operation. Proper maintenance, with an eye toward safety, can prevent a lot of damage elevators are being subjected to both by plant personnel and by motorized material handling equipment. Check the following tips to see how well or otherwise your elevators are being treated. Mr. Otto's paper was delivered during the textile section program at the last National Safety Council's Conference.

YOU may well ask, "Just how safe are elevators?" Our answer to that is: "The safest means of transportation in existence today." Since the National Safety Council does not compile any records of elevator accidents, we can only project our own experience records based on accidents reported on the 50,000 elevators we have had under some form of service during the past five years. Our records indicate that 6.7 accidents per 1,000 elevators occur per year. If we may assume that this experience average is applicable to the remaining 200,000 elevators in the United States, we can anticipate 4.6 elevator accidents every day of the year. These are few accidents, when you compare them with the 20 billion passengers using elevators yearly, traveling a total of a half-billion vertical miles.

Accidents on elevators range from minor incidents such as a door hitting a passenger or a person tripping over a door sill, to fatalities. Among the latter: those people who insist on opening hoistway doors with all sorts of contraptions and then walk into the hoistway. (If they live, they always say "I thought the elevator was there.") Even though accidents on elevators are relatively few in number, we cannot ignore them. The causes that brought them about should be determined, so that modifications can be made in old equipment and changes incorporated in future design to prevent their recurrence.

In the early days before 1930, safety codes for elevators were more or less sketchy or non-existent in many parts of the country. Under these circumstances, if the company installing the elevator did not include in its design some important safety features, there were no compelling reasons for them to make them part of their specifications. Then again, there were companies who did not have broad enough experience to recognize the necessity of certain safety features. If an owner has an outmoded or substandard elevator, the elevator industry is prepared to survey his equipment and make recommendations for additions and alterations so that it will meet present day safety standards.

Practically everything we do today is accomplished by pressing or touching a button which may merely ring a bell, light a room or start a complicated machine into motion. Elevators have been automatically operated by push buttons since 1892. At the present time, this type of electronic operation has reached such a degree of refinement that entire groups of passenger elevators can be operated and scheduled automatically by the mere touch of a button by a passenger in the car or corridor.

Automatic push button operation is not confined to passenger elevators alone. It is also in general use with freight elevators. The pressure of a single button on this type of freight elevator closes hoistway doors and car gates, accelerates the car to normal speed, retards it, levels and stops it at the selected floor, and doors and gates open automatically. These features not only increase the material handling efficiency, but take out of circulation many of the factors that have contributed to accidents and damage to material and equipment, especially those that resulted from mistaken judgment on the part of the operator or people handling material.

Power Trucks

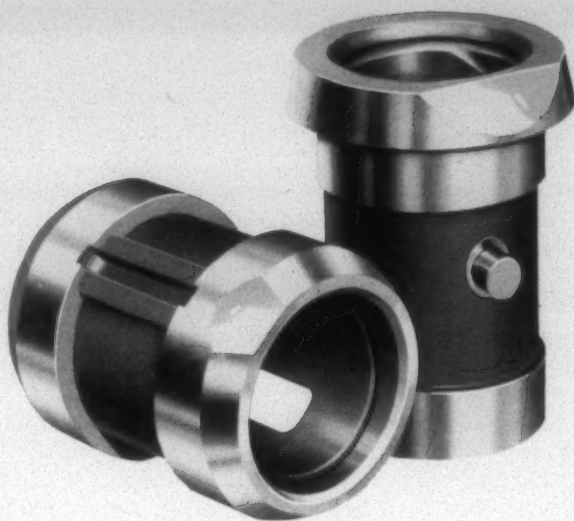
Industry, also striving to improve its material handling efficiency in other ways, began to use more and more power trucks, until today they are in almost universal use. These power trucks weigh anywhere from 2,000 pounds up and may carry loads equal to their own weight.

When a loaded power truck with relatively small wheels moves its weight and load at a speed of five to ten miles per hour onto an elevator platform and stops abruptly, there is a tremendous impact on the platform, which is imparted to carframe, rails and rail fastenings. If the elevator is slightly off level when the truck rolls on, the impact is far greater, and subjects the elevator to severe bending and twisting stresses. The load which the truck carries is generally deposited with a bang in one corner or another of the elevator, as space must be left for the loads that follow. Off-balance loads such as these punish and weaken an elevator severely. Elevator companies have long recognized the necessity for providing elevators suitable for power truck loading, and can furnish new or rebuild existing heavy-duty freight elevators for these requirements.

You may say, "That is all well and good, but what about the elevators that I have in my plant? What measures can I take to handle material more efficiently and more safely on my elevators?" Naturally, the first thing to do is to determine the present physical condition of your elevator and whether it is adapted for the purpose for which it is being used. It is, of course, important to know when it was installed to determine what it was originally used for and whether or not a safety code existed at the time that governed its installation. Please bear in mind that our experience indicates that over 50 per cent of serious and fatal accidents on freight elevators could have been prevented, had available and adequate safety devices or safeguards been used.

If you are using power trucks for handling material on and off the elevator, check to see if the elevator is designed to take the overload imposed by the power truck, which in some cases may be as much as 50 per cent over the capacity of the elevator. The members of the carframe of the older types of elevators under power truck loading, undergoing the twisting and bending action of such loading, sometimes become fatigued and either crack or break off at the gusset plate or just above the platform behind the car enclosure. Both locations are very difficult to observe in an ordinary visual inspection. The platform itself is often twisted out of shape, its framing broken, the subflooring cracked and the finished flooring splintered. In many cases, bolts securing car shoes are sheared off and rail fastenings become loosened. If any or all of these conditions occur, the practice of power truck loading should be discontinued until changes can be made to the elevator to accommodate this type of service.

Elevator entrances are the focal point of elevator accidents. Our experience tells us that 80 per cent of them take place there. We should use every means and device available to us in an endeavor to make it impossible for people who enter and leave the elevator to injure themselves. The persons and material must not only be protected while entering but while riding as well. Therefore, there should be a car gate or car door on the elevator with an electric contact so connected that it will prevent the elevator from starting and running with the door open, and in the event that the door is opened while the car is in motion, that it will promptly stop it. Car sides of freight elevator should preferably extend to the car top, but in any case the section where the counterweight passes the car must be protected by a solid panel the full height of the car. It is most important that the space between the car and the hoistway wall opposite the car entrance be as small as possible, to prevent material or persons falling into this space, if for any reason the car is



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stopped between floors and the car gate or door is opened. If the sill extends beyond the line of the hoistway wall, the minimum protection should be a beveled metal guard at a 60° angle.

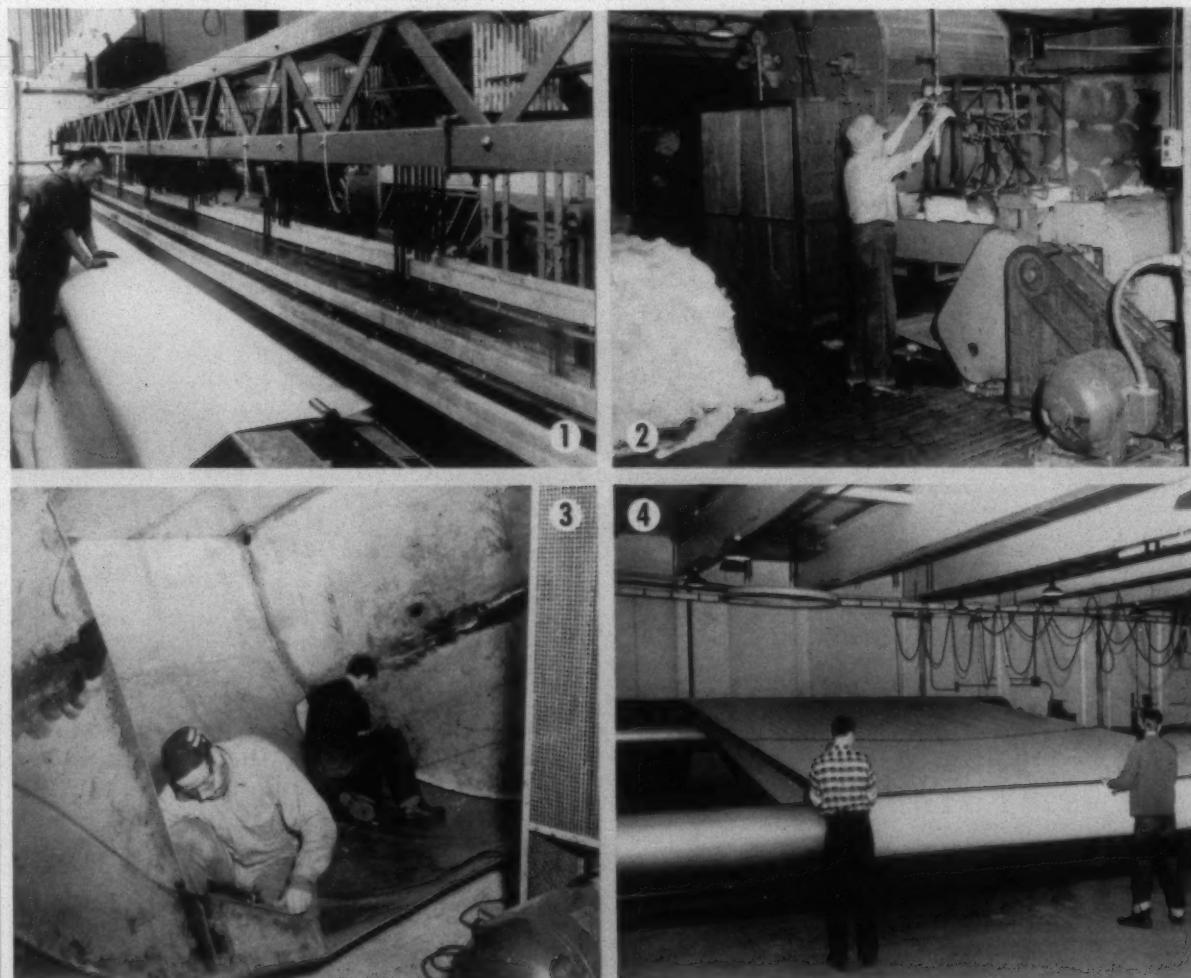
There are in use today wood and steel hoistway gates of various types and vintages that furnish little or no protection against material falling into the hoistway or persons projecting their head or parts of their body in the path of an ascending or descending elevator. This type of gate affords practically no protection when struck by a power truck. If you have to live with hoistway gates, they should be constantly kept in good repair.

It is also important that hoistway entrances be protected electrically by means of interlocks or locks and contacts, so that the elevator cannot be operated with the doors open; and be mechanically locked, in order that the doors cannot be opened when the car is away from the floor, except through controlled emergency access by special keys. Safety

engineers know the importance of adequate lighting wherever work operations are being performed. It is quite as essential that similar lighting be provided at all elevator entrances and in the elevator itself.

If the method of control requires that the operator gauge the stopping of the elevator and requires him to place the car at floor level through "inching," it introduces lost time into your production schedule, curtails the use of the elevator, may cause unnecessary wear and tear of elevator equipment, and increases the possibilities of damage to materials and injury to manpower during loading and unloading operations. Automatic leveling is the solution to these problems.

Proper physical equipment is not the entire answer to the problem of safe handling of material on elevators. Quite as important is the proper training of the operator and the manner in which he uses the equipment. The operator should be familiar with the procedure he is to follow under emergency conditions. He should know what to do when the car is stalled away from the landing, when a person is



FOUR-POINT MODERNIZATION PROGRAM INCREASES APPLETON WOOLEN MILLS' PRODUCTION—Appleton (Wis.) Woolen Mills has announced the completion of four steps in its current modernization program. (1) Installation of a \$70,000 Crompton & Knowles 600-inch loom which opens the way to increased production and now permits the company to furnish paper mills with felts up to 300 inches in width. (2) A Bramwell picker-feeder. This pre-carding operation assures a more accurate and uniform blend of wool and synthetic fibers. (3) A ten-foot stainless steel washer. Production of wider felts has necessitated larger-capacity fulling equipment to accommodate felts of increased size and weight. Appleton designed the washer now being assembled to augment the fulling department's output and to permit more chemical felt treatments. (4) A new 300-inch David Gessner napper and 320-inch Beloit dryer. The dryer allows drying of giant-sized felts and the 60-inch diameter roller speeds drying time. In addition to producing larger felts and increasing production, the company says the new equipment opens the way to more uniform control of quality and accelerates delivery time.

PERSONAL NEWS



S. A. Moffitt

Samuel A. Moffitt has been appointed textile consultant for Mount Hope Machinery Co., Taunton, Mass. For a number of years Mr. Moffitt has been actively engaged as a consultant. In this capacity he has served textile plants throughout the world and has recently completed the planning and laying out of a large printing, dyeing and finishing plant. His experience also includes supervisory and executive positions with Imperial Printing & Finishing Co., Rock Hill Printing & Finishing Co., Amoskeag Mfg. Co., Dan River Mills, Textile Finishing Machinery Co., Warwick Chemical Co. and A. D. Miller Corp.

Joseph W. Tucker has joined The Chemstrand Corp. as a senior sales specialist. Mr. Tucker, who has been assigned to the Acrilan sales group at the New York City sales offices of the corporation, was formerly with the fiber market development department of American Cyanamid Co. and the rayon machinery division of H. W. Butterworth & Sons Co. in Philadelphia, Pa.

John P. Baum, vice-president of J. P. Stevens & Co. Inc., Milledgeville, Ga., has been initiated into Phi Psi, textile honorary fraternity, at the Georgia Institute of Technology. Mr. Baum was chosen for his achievements in the textile field and for his civic activities.



Jared J. Mowry

Jared J. Mowry has been named vice-president of Polymer Southern Inc. of Greenville, S. C., manufacturer of chemicals and adhesives for the textile industry. Mr. Mowry is well known in Southern textile circles, having been active in the field for many years. In his new post he will assist in the management of Polymer Southern and in the co-ordination of sales.

T. F. Lochridge, supervisor of the weaving departments of Plants 1 and 2, Crown Cotton Mills, Dalton, Ga., has retired after 65 years with the company. Mr. Lochridge, now 79, first joined Crown in 1887 at the age of ten. Attending school at night, he

began work on the day shift as sweeper at ten cents a day. In 1902 he left Crown to go to Monticello, Ark., where he worked for another mill for five years. He returned to Dalton in 1907 upon completion of Crown's No. 2 mill and took charge of the weave rooms in both the company's plants, a position he has held ever since. Company officials and fellow workers honored him on his last day on the job with a gold, engraved watch and various gifts.

J. T. Bray, superintendent of Woodside Mills, Greenville, S. C., has announced his plans to retire in October. Mr. Bray joined Woodside in January 1926 as overseer of carding. He has been superintendent of the plant since March 1936. James R. Clark, superintendent of the company's Easley, S. C., plant, will succeed Mr. Bray at Greenville. Succeeding Mr. Clark at Easley will be J. Harvey Cleveland, overseer of carding in Greenville. J. D. Beacham, overseer of carding and spinning at Easley, will replace Mr. Cleveland at the Greenville plant.

G. Ray Jeffcoat, assistant superintendent of Opp Cotton Mills and Micolas Cotton Mills, Opp, Ala., was recently made president of the Opp Lions Club. Mr. Jeffcoat is a charter member of the club.

T. Bryant Kersey, vice-president of the Hillcrest Division, and Robert D. Brawner, assistant treasurer of the Pineview Division, have retired after many years service with Callaway Mills Co., LaGrange, Ga. Mr. Kersey joined Callaway in 1909 as second hand in the spinning room of Unity Spinning Plant, and has been vice-president of the Hillcrest Division since 1945. Mr. Brawner joined the company as a payroll clerk at the Hillside Plant in 1921. He was made assistant treasurer of the Pineview Division in 1943. . . . O. C. Smith, superintendent of the Callaway plant in Manchester, Ga., and Bruce Bozeman, overseer of carding at Manchester, have been elected to four-year terms on the Manchester School Board of Education. Their duties will begin Jan. 1, 1957.

Fieldcrest Mills Inc., Spray, N. C., has announced the following personnel changes: John Cunningham has been appointed assistant superintendent of the Karastan Rug Mill. Mr. Cunningham was formerly with Mohasco Industries' Alexander Smith Division. He has been engaged in rug and carpet manufacturing for many years. . . . James E. Troy has joined the company as director of product development at the Karastan Rug

Mill. A native of Connecticut, Mr. Troy also was formerly associated with the Alexander Smith Division of Mohasco where he was assistant director of product development for several years. . . . J. B. Baughn has been promoted to assistant foreman, second shift, of the piece dyeing department at the bleachery, succeeding John Romaine, who has resigned. Mr. Baughn, formerly a student employee at the bleachery and finishing mill, joined Fieldcrest last year following graduation from the School of Textiles, North Carolina State College, with a B. S. degree in textile chemistry and dyeing. . . . E. L. Funderburk, Blanket Mill foreman, was recently awarded a plaque by Lions International for "distinguished service in the building of the association." Mr. Funderburk is a charter member and past president of the club.



Walter Mitchell

Walter M. Mitchell, vice-president of Draper Corp., Hopedale, Mass., has been elected to honorary membership in the Delta Kappa Phi Fraternity of America. Mr. Mitchell was selected for the honor during the recent 32nd national convention of the fraternity held in Atlanta, Ga. . . . Recent initiates into the fraternity include Maurice R. Fox of Imperial Chemical Industries Ltd. of London, England, recently in this country on loan to Arnold, Hoffman & Co. Inc., Providence, R. I., and Thomas H. Quigley, prominent author, advisor, and current director of industrial education for the state of Georgia. Delta Kappa Phi, the oldest professional textile fraternity in America, plans to hold its 33rd convention in Philadelphia, Pa., in April 1957.

James A. Chapman Jr., vice-president of Inman (S. C.) Mills, has been chosen textile division chairman of the 1956 Spartanburg Community Chest campaign.

H. M. West has been appointed manager of textile fibers for Carbide and Carbon Chemicals Co., a division of Union Carbide and Carbon Corp. Mr. West joined the company in 1941, and has served as assistant to a vice-president since 1955.

J. B. Harris, chairman of the board of Greenwood (S. C.) Mills, has been awarded a Doctor of Humanities degree by Lander College, Greenwood. Mr. Harris has been a member of the board of the college

PERSONAL NEWS

since 1948, and chairman of its finance committee all that time. A veteran of more than 50 years in the textile industry, Mr. Harris has been with Greenwood Mills since 1913. He served 32 years as vice-president and director, becoming board chairman of Greenwood Mills Inc., the New York selling house, when it was organized. Following the death of James C. Self, president of Greenwood Mills, Mr. Harris was elected board chairman. He served as president of the Cotton Manufacturers Association of South Carolina in 1949.



Seth M. Snyder

Seth M. Snyder has been appointed manager of the Charlotte, N. C., district sales office of the boiler division of The Babcock & Wilcox Co. Mr. Snyder has been with the company since 1936, and has been assigned to the Charlotte office since 1946. In announcing Mr. Snyder's promotion, the company called attention to the fact that the Charlotte office has been elevated to full district office status to keep pace with the growth and development of the Carolinas.

Ben Cone, chairman of the board, Cone Mills Corp., Greensboro, N. C., has been named first president of the newly-organized United Fund of Greater Greensboro Inc. . . . Clarence Cone, vice-president of the company, has been elected president of the Medical and Hospital Fund Agency of the Greensboro Community Chest.

Reid Tull, former sales manager of Arnold, Hoffman & Co., has been named vice-president in charge of sales development for Proctor Chemical Co., Salisbury, N. C. Mr. Tull has also been associated with North Carolina Finishing Co. and United Merchants & Manufacturers Inc. His addition to the staff is part of an expansion program at Proctor that will include installation of a new 15,000-square-foot warehouse, two glass-lined steel reactors of 500 and 1,000-gallon capacity equipped with distillation apparatus, and a new 2,000-gallon stainless steel jacketed vessel.

Charles W. Sanford, formerly affiliated with American & Efrid Mills and Globe Mills, Mt. Holly, N. C., has joined D. E. Rhyne Mills Inc., Lincolnton, N. C., as superintendent. A native of Laurinburg, N. C., Mr. Sanford attended North Carolina State College where he studied textile engineering. He was employed by Waverly Mills Inc., Laurinburg, as laboratory supervisor until 1952. He then became affiliated with American & Efrid Mills as overseer until March 1956, at which time he joined Globe Mills as general overseer.

Edwin L. Lyon has resigned as general manager of the Hoskins Plant of Spatex Corp., Charlotte, N. C. It is understood that Mr. Lyon has moved to Gulfport, Fla. He joined Spatex in late 1954 after serving ten years as manager of Warwick Mills,

West Warwick, R. I., and as manager ten years of the Hill Division of Bates Mfg. Co., Lewiston, Me. He was president of the Southern New England Textile Club when he moved to Charlotte in 1954.

Max Rice, president of Blair Mills, Belton, S. C., is the new president of the Furman University Alumni Association. Mr. Rice succeeds Arthur C. McCall, vice-president of Alester G. Furman Co., Greenville, S. C.

J. Fred Corriher has been elected president of Corriher Mills Co., Landis, N. C., succeeding his father, the late L. A. Corriher. The new president was formerly secretary and assistant manager, a post in which he has been succeeded by Carl Alexander, who had been assistant secretary. . . . P. K. Dry, superintendent, has been elected vice-president in charge of manufacturing. . . . Lane C. Dry, assistant superintendent, has been promoted to general superintendent and added to the board of directors. . . . Dr. O. R. Black was re-elected vice-president and O. A. Corriher was re-elected treasurer and named assistant manager. . . . Re-elected directors were Dr. B. O. Edwards, Asheville, N. C., and Ralph Linn, P. K. Dry and Tom Linn, all of Landis.

Dr. Eugene W. K. Schwarz and George A. Urlaub have been retained as part-time consultants to B. F. Goodrich Chemical Co. on its Darlan dinitrile fiber development program. Dr. Schwarz, who has been a consulting chemist in the textile field since 1945, will be concerned primarily with dyeing techniques. Mr. Urlaub, who has been an independent consultant to private industry and the government since 1942, will deal with the knitting phase.

Hugh M. Comer, chairman of the board of Avondale Mills, Sylacauga, Ala., was presented one of scouting's highest awards at the recent 46th annual convention of the National Council of the Boy Scouts of America in Cincinnati, Ohio. Mr. Comer was one of 13 business men to receive the Silver Buffalo Medal for distinguished service to boyhood.

Graydon Robinson, superintendent of Lebanon (Tenn.) Woolen Mills, has been promoted to vice-president of the company. Mr. Robinson, who has been with Lebanon since 1923, is also a member of the board of directors of the mill. . . . Charles H. Baird, production manager, has been promoted to general manager. He has been with the mill since 1937. . . . Leonard Ballard, assistant secretary, has been named secretary. Mr. Ballard joined the firm as a clerk in 1937.

Herbert R. Silverman, executive vice-president and director of James Talcott Inc., factors, has been named a 1956 recipient of the New York University Alumni Meritorious Service Award. The award, given annually "to honor one who through good deeds has served Alma Mater," is the highest bestowed upon graduates by the university's alumni federation. A 1932 graduate of N. Y. U., Mr. Silverman was president of the student body of the School of Commerce, Accounts and Finance in his senior year and president of the school's alumni association

in 1954-55. Mr. Silverman received a law degree from St. Lawrence University in 1935. The first president of the New York University Club, he has been a guiding force in the creation of the club, which will open this month at 123 West 43rd Street, New York City.

Leroy Springs Gaffney, formerly assistant manager of the Lancaster, S. C., plant of The Springs Cotton Mills, has joined M. Lowenstein & Sons Inc., at Anderson, S. C., as assistant to J. J. Lyons, vice-president in charge of manufacturing for Lowenstein's Southern plants.

E. Lee Ramey, vice-president and general superintendent of Inman (S. C.) Mills, and Clyde Crocker, personnel director of Riverdale Mills, Enoree, S. C., have been elected to three-year terms as directors of the Spartanburg County Tuberculosis Association.



W. H. Hindle

Walter H. Hindle, associate director in charge of dyeing and finishing for The Chemstrand Corp., Decatur, Ala., has been promoted to the newly-created position of associate director in charge of the textile research divisions. His new responsibilities will include the over-all direction of the dyeing and finishing and textile processing divisions. Prior to joining Chemstrand, Mr. Hindle was in charge of the dyeing and finishing research and development department of Burlington Mills Corp. at Greensboro, N. C. Prior to that he was engaged in dyeing and finishing and research and development for several years with Celanese Corp. of America at Amcelle, Md. He also was employed by the Dominion Textile Co. of Canada and Bradford Dyers' Association, Bradford, England, where he received his early training in the plants and laboratories in conjunction with the Manchester College of Technology, specializing in dyeing, printing and finishing.

American Enka Corp. has announced the appointment of Claude Ramsey Jr. as production manager of its new \$21,000,000, rayon staple fiber plant currently under construction at Lowland, Tenn. Mr. Ramsey will be succeeded as administrative assistant to the vice-president for manufacturing by Gale P. Wait. Both appointments will become effective July 1.

Clifford J. Backstrand, president of the Armstrong Cork Co., Lancaster, Pa., has been named to represent the textile and chemical products industries on the National Advisory Council for the national industrial exposition of new industrial products, methods and research developments to be held in Detroit, October 1956.

Frederick A. Gilbert has been elected president of Becco Chemical Division of Food Machinery and Chemical Corp., Buffalo, N. Y., succeeding Dr. Max E. Bretschger who retired on the 30th anniversary of his association with the company. Mr. Gilbert came to Becco, Buffalo Electro-Chemical Co. at that time, as a control chemist

in 1935. He later worked in the research laboratory and the production department. He assumed management and instituted operation of Becco's new peroxygen chemicals plant at Vancouver, Wash. in 1951. Two years later he returned to Buffalo as assistant to the vice-president; became vice-president and assistant division manager when Buffalo Electro-Chemical Co. was merged with Food Machinery and Chemical Corp.



A. L. McArthur III

A. L. McArthur III has been named a technical sales representative in North Carolina for the Warwick Chemical Co. division of Sun Chemical Corp., Long Island City, N.Y. Mr. McArthur, who will make his headquarters in Greensboro, will be responsible for the sales of all Warwick textile chemicals. Prior to joining Warwick Chemical, Mr. McArthur was employed by Burlington Industries as chief chemist of that company's Cramerton (N. C.) Division, later being assigned to Burlington's finishing division research program. Mr. McArthur is a graduate of Duke University.

Albert E. Bowman has been promoted to general overseer of carding and padding at Aragon (Ga.) Mills, unit of United Merchants and Manufacturers Inc. Mr. Bowman was employed as first shift supervisor of spinning prior to his promotion. A native of Chatoga County, Georgia, Mr. Bowman replaces R. C. Webb, who resigned. . . . Harvey H. Crawford has been named third shift supervisor of weaving. Mr. Crawford, formerly with Burlington Mills, replaces T. Watson Jones, who resigned.

Marvin A. Law has joined Fieldcrest Mills in a newly-created position where he will be responsible for co-ordinating and expediting mill and staff functions involved in the development and styling of the company's domestics products. A native of Mecklenburg County, N. C., Mr. Law is a graduate of the North Carolina State College School of Textiles. He has formerly been associated with Burlington Industries and Cone Mills Corp.

John H. DeWitt, formerly treasurer of Brinton Machine Co., has been elected treasurer and controller of Fletcher Works Inc., Philadelphia, Pa., manufacturer of narrow fabrics looms, centrifugals and throwing equipment. In his new post, Mr. DeWitt will also supervise office management.

Dr. Herbert F. Schiefer, a textile physicist in the Organic and Fibrous Materials Division of the National Bureau of Standards, has been awarded the Department of Commerce Gold Medal for Exceptional Service. The award recognizes his "outstanding contributions to textile science and technology." Dr. Schiefer is an internationally known authority in the textile field. In addition to his contributions at N.B.S., he served as technical advisor in 1950 to the Economic Co-operation Administration in Europe and in 1955 to the International

Co-operation Administration in Asia. He was a delegate to the 1955 International Wool Research Conferences in Australia. In 1945 he served as scientific consultant to the Department of the Army in the first survey of the German textile industry after World War II. He took leave of absence from the Bureau in 1951-52 to serve as director of research and graduate instruction in the School of Textiles, North Carolina State College, Raleigh. Dr. Schiefer has developed and invented many devices for testing the properties of fibers, yarns and fabrics and a number are widely used by the textile industry today. He received the Harold DeWitt Smith Memorial Medal in 1950 from the American Society for Testing Materials for his pioneering work in textile research. His recent work has been concerned with new techniques for obtaining stress-strain relationships in yarns subjected to rapid impact loading and the measurement of a new basic property of textile fibers, the limiting breaking velocity. This property is of practical importance in the design of textiles for safety lines, parachute webbing, tire cord and flexible body armor. Dr. Schiefer joined N.B.S. in 1929 from Des Moines University where he was head of the mathematics and physics department. He was educated at the University of Michigan, receiving his B. S. degree in civil engineering in 1924, his M. S. in science in 1925, and a Ph. D. in astrophysics in 1928. During his last four years at Michigan he was instructor of engineering mathematics and astronomy. He has written some 100 scientific papers and technical reports and holds three patents. He is a member of Tau Beta Pi, the Fiber Society (former president), Washington Philosophical Society, Washington Academy of Science, American Society for Testing Materials, and is a fellow of the British Textile Institute and the American Physical Society.



Dallas C. Neese

Dallas C. Neese has been named vice-president of the McLeod Cos. Inc. and manager of Odell Mill Supply Co., both with offices in Greensboro, N. C. Mr. Neese succeeds Karl Fisher, who has retired as vice-president and manager after 30 years with the firm. Formerly secretary of the organization, Mr. Neese has been with the firm since 1924.

John Knox Patterson Jr. of Salisbury, N. C., a senior in the School of Textiles at North Carolina State College, is the 1955-56 winner of the \$400 Kever Starch Scholarship at the college. A 1952 graduate of Boyden High School in Salisbury, Mr. Patterson has made an outstanding record in his studies since enrolling at N. C. State and has also been active in extra-curricular activities.

Dan T. Henderson, former Charleston, S. C., newspaperman and for the past 16 months research secretary for South Carolina's Gov. George Bell Timmerman Jr., has joined the staff of the American Cotton Manufacturers Institute. Mr. Henderson will

work in the field of public relations and community relations, with headquarters in Columbia, S. C. He is a graduate of the School of Journalism of the University of South Carolina. He was employed in the news department of *The News and Courier* in Charleston, S. C., for several years. He was assistant city editor of the newspaper when he resigned early in 1955 to join Governor Timmerman's staff.



Robert F. Kipp

Robert F. Kipp, formerly an assistant to the advertising manager, has been named to head sales promotion in the textile industry for Oakite Products Inc. The company manufactures cleaning and descaling compounds and equipment. Mr. Kipp joined Oakite in 1946. Educated at George Washington and Columbia Universities, he is a member of the American Pulp and Paper Mill Superintendents Association.

Bart H. Bossidy has been elected to the board of directors of Chicopee Mfg. Corp. Mr. Bossidy, a member of the firm since 1940, is vice-president and general manager of the corporation's synthetics division. He joined Chicopee in 1940 as assistant to the president of Chicopee Mills Inc. In 1945, he became director of market research and development. From 1948 to 1951, he held, successively, the positions of product



Bolton, Petty

40-YEAR PIN—Rolandus C. Petty, Southern supervisor of spinning and twisting erectors for Whitin Machine Works, Whitinsville, Mass., was among the veteran employees of the company receiving service awards at the annual employees' banquet recently in Whitinsville. Mr. Petty, who makes his headquarters in Gastonia, N. C., joined the firm in 1916 and has a remarkable record of having been absent only 2½ days during his 40 years with the firm. He started as an erecting mechanic in 1916. Shown congratulating him upon receiving his service pin is J. Hugh Bolton, president of Whitin Machine Works.

PERSONAL NEWS

director and sales manager, and manager for Chicopee's non-woven fabrics division. Mr. Bossidy became manager in 1951 and vice-president in 1954 of the rayon division, which changed its name to the synthetics division this year. He will continue to make his headquarters in New York City.



Harry J. Delaney

Harry J. Delaney, vice-president of John P. Maguire & Co., New York City, has been elected to the National Executive Committee of the Boy Scouts of America. Mr. Delaney, who is now serving as vice-president of the Greater New York Councils of the Boy Scouts and as general chairman of the 1956 Finance Campaign in New York, will thus extend his activities on behalf of the organization to a national basis. In his capacity as a member of the executive committee, Mr. Delaney will serve with many of the nation's leaders, including President Eisenhower, Ezra Taft Benson, Leonard K. Firestone, John M. Schiff and Thomas J. Watson.

In a realignment of its textile chemical sales responsibilities, Leon P. Brick, executive vice-president of Onyx Oil & Chemical Co., Jersey City, N. J., has been placed in charge of such sales in addition to his regular duties. . . . Other changes in the textile chemical staff include the promotion of Paul D. Jacobs to assistant sales manager of the textile division. Mr. Jacobs was formerly group leader of the textile evaluation and testing group. Morton Schlesinger has been appointed to succeed Mr. Jacobs in the research department. He is a graduate of Lowell Textile Institute, and brings to his new position a number of years of active and diversified experience in the field of textile dyeing and finishing.

William B. Wine, vice-president of the transparent packings division of Lassiter Corp., Greensboro, N. C., has been appointed sales manager of all Southern divisions of the company. In 1947, Mr. Wine joined the Lassiter Corp., package designers and printers, as a salesman. He was appointed vice-president of the transparent packings division in 1952.

Edward A. O'Neal Jr. has been elected president of The Chemstrand Corp. to fill the vacancy created by the resignation of Henry H. Bitler of Decatur, Ala., who is returning to American Viscose Corp. Mr. O'Neal, of St. Louis, Mo., has resigned as vice-president and director of Monsanto Chemical Co. and will take over his new duties with Chemstrand immediately. He has been a member of Monsanto's board of directors and the executive offices of the president since April 1955. He has held the title of vice-president for international operations since that date. A native of Florence, Ala., Mr. O'Neal received his B. A. degree in 1926 from Davidson (N. C.) College. He began his business career that same year with the Swann Corp. of

Anniston, Ala., which was acquired by Monsanto in 1935. He served successively at that location as research chemist, assistant supervisor of abrasives operations, supervisor of electric furnace operations, assistant plant manager and, from 1937 to 1941, as plant manager. In 1941, he became plant manager of Monsanto's former phosphate division plant at Trenton, Mich. He was promoted to production manager of the division in 1944. In 1946, he was named managing director of Monsanto Chemicals Ltd., a Monsanto subsidiary, with headquarters at London. In 1954, he was elected a vice-president of Monsanto and general manager of the overseas division.

J. William Wilson has been named division manager of Erwin Mills operations at Cooleemee, N. C. A native of Brooklyn, N. Y., Mr. Wilson was employed by Ankokas Mills, Mt. Holly, N. J., for a short period of time. He then took a position with Delta Finishing Co. of Philadelphia, Pa., where he worked his way up from foreman of finishing to plant manager. He was plant manager when the operation closed in 1954. For the past two years he has served as contact man and in customer service work between the Cheraw, S. C., and Clemson, S. C., plants of Delta Finishing. Erwin's Cooleemee division is composed of a greige goods mill and a dyeing and finishing plant. C. W. Howell is manager of the mill and W. R. Wands is manager of the finishing operation. . . . Jack T. Holt, purchasing agent for Erwin in Durham, N. C., was recently installed as a vice-president of the National Association of Purchasing Agents. Mr. Holt will be national vice-president in charge of the association's newly-created fifth district. He has been with Erwin 22 years, becoming assistant purchasing agent in 1942 and purchasing agent in 1952.

A. Carl Martin Jr. has been appointed staple products sales manager of Celanese Corp. of America. A member of the Celanese organization since 1946, Mr. Martin has directed various Celanese sales programs involving acetate and viscose staple fibers, acetate spun yarns and viscose filament yarns. Most recently, he had been manager of textile sales development. In his new capacity, he will be sales manager for acetate and Arnel staple and tow, rayon tow and spun yarns. Previously, Mr. Martin had worked for Deering, Milliken Co. Inc.

Frank Starling, assistant superintendent on the third shift at the White Oak Plant of Cone Mills Corp., Greensboro, N. C., has been named superintendent of the Proximity Plant to succeed John D. Scott, who is retiring due to ill health. Mr. Scott joined Cone Mills in 1906, and was named superintendent of the Proximity Plant in 1938. . . . Jack Hughes succeeds Mr. Starling at the White Oak Plant. Mr. Hughes, recently with the company's rayon operation, has been with Cone Mills 18 years. . . . Wilbur Honeycutt has been named overseer of carding at Proximity. He joined the firm in 1954 as a trainee and has served in supervisory capacities in the company's denim and rayon operations. He holds a B. S. degree in textile manufacturing from North Carolina State College.

William C. Dodson, sales and development engineer for Smith, Drum & Co. for many years, has retired. Mr. Dodson, who will remain "on call" on a consulting basis, plans to spend most of his time on his farm on Currutuck Sound in North Carolina. He plans also to maintain his residence in Meadowbrook, Pa.

George W. Pfeifferberger, a member of the research staff of the National Cotton Council, has been appointed executive vice-president of Plains Cotton Growers Inc., Lubbock, Tex. For the past two years Mr. Pfeifferberger has led the Cotton Council's research program aimed at developing an improved bale package. Prior to joining the council, he was research director and technical mill consultant for the cotton merchandising firm of Otto Goedecke Co., Hallettsville, Tex. From 1944 to 1952, he was spinning research director for the Chicopee Mfg. Corp., Lubbock. For many years he was with the U. S. Department of Agriculture. In his new post he will be concerned with activities aimed at solving cotton production problems in the Lubbock area, at improving and stabilizing fiber and seed quality, at improved merchandising and promotion of short-staple consumption, and with analysis of government policies affecting cotton.



P. H. Hanes Sr.

P. H. Hanes Sr., one of the founders of the P. H. Hanes Knitting Co., Winston-Salem, N. C., is retiring from active management of the company. Mr. Hanes, along with his father, Pleas Hanes, and his brother, William, founded the company in 1902. Initially producing two-piece, heavy-weight and long-handled drawers, the firm was reorganized in 1903 as a corporation with an authorized capital of \$100,000. Prior to 1900, Pleas Hanes and his brother, John Wesley Hanes, had been manufacturers of plug tobacco and knew nothing about textiles. They sold their tobacco interests to the R. J. Reynolds Co. in 1900, however, and got into the knitting field just as the Southward migration of the industry was getting under way. Pleas Hanes went into production of men's underwear while John Hanes organized a separate firm that was later to become Hanes Hosiery Mills. Following his father's death in 1925, P. Huber took over active management of the company. His son, P. H. Jr., is now president of the firm. The senior Mr. Hanes, who was honored at a testimonial dinner in Winston-Salem June 7, retains his position as chairman of the company's board of directors.

Torben E. Neesby has been appointed technical director of the textile chemical department of E. F. Drew & Co. Inc. Mr. Neesby was formerly head of organic and inorganic research for Carroll, Dunham Smith Pharmacal Co. Prior to that he was technical director of a chemical manufacturing plant subsequently absorbed by Carroll, Dunham Smith. He was a consulting chemist in Norway prior to World War II where he founded his own chemical man-

ufacturing plant in Oslo. Following the war he migrated to Canada where he was associated with the Dye & Chemical Co.



Samuel Sinclair

Samuel Sinclair has been appointed sales manager of the Lestershire Bobbin Division of National Vulcanized Fibre Co., Wilmington, Del. Formerly district manager of the company's Newark, N. J., office, Mr. Sinclair will have his headquarters at the Lestershire plant in Johnson City, N. Y. He will co-ordinate all National bobbin sales activities with the company's sales staff and representatives. National's bobbin sales representatives in the South are Greenville (S. C.) Textile Supply Co. and Odell Mill Supply Co., Greensboro, N. C. Mr. Sinclair has been with the company more than 25 years.

James M. Blake, assistant secretary of The Abney Mills, Greenwood, S. C., is the newly-elected president of the Columbia, S. C., Chapter of the National Association of Cost Accountants. Mr. Blake, who will assume this post July 1, has been with Abney Mills since 1940. He was named assistant secretary in 1955.

Lewis R. Briggs, vice-president and director of manufacturing, American & Efrid Mills Inc., Mount Holly, N. C., has been named to the firm's board of directors, and Allan W. Vint, director of research, has been elected an assistant vice-president.

H. H. Burrows has been appointed senior vice-president of the rubber sales division of Raybestos-Manhattan Inc., Passaic, N. J. Mr. Burrows joined the Manhattan Rubber Division in 1915, later became manager of the roll and tank department, sales manager of industrial rubber products division and was appointed a vice-president of the corporation in January 1955. . . . S. J. Synnott and C. V. Vetell have been named assistant sales manager of rubber products and manager of rubber product sales, respectively.

Benjamin F. Pulsifer has been appointed manager of the Pequot Finishing Plant of Indian Head Mills Inc., Whitney, S. C. Mr. Pulsifer succeeds George Smith, formerly manager of the bleaching, sheeting and finishing plant, who now superintends the cotton mill.

Charles Wheeler has been put in charge of the worsted division of Chatham Mfg. Co., Elkin, N. C.

Walter L. Hudson has been named Southern sales manager of the Victor Ring Traveler Co., Providence, R. I. His headquarters will be at Victor's Southern office and stockroom in Gastonia, N. C. Leona Brabham will continue as Southern office manager. Mr. Hudson has been a Southern sales representative of the company since 1939, operating from Columbus, Ga.

Bernard Menin has been appointed manager of the textile sales department of E. F. Houghton & Co., Philadelphia, Pa., man-

ufacturer of surface active agents, finishes, softeners and other textile processing oils. Mr. Menin, former assistant manager, succeeds C. B. Kinney, who retired last March after more than 25 years with the company. A graduate of the Philadelphia Textile Institute, Mr. Menin joined Houghton in 1941. . . . Dr. Robert K. Smith has been named manager of research for the company. He was formerly associated with the Houdry Process Corp., Marcus Hook, Pa.

Parker Wheeler has been appointed sales manager of the felt products division of The Felters Co. of Boston, Mass. Mr. Wheeler joined Felters in June 1948.

H. E. Mosteller has been transferred and promoted from Greenwood, S. C., to overseer of carding at the Poinsett Plant of The Abney Mills, Greenville, S. C.

Jacke Locke, formerly executive vice-president, is now president of U S Bobbin & Shuttle Co., Lawrence, Mass. He succeeds Charles Brooks. John G. Jackson Jr. continues as board chairman, and Norman Delisle continues as secretary-treasurer.



Dr. H. Wakeham

Dr. Helmut Wakeham, director of research at the Textile Research Institute, Princeton, N. J., has been granted a two-year leave of absence from T.R.I. to assume the post of director of the Ahmedabad Textile Industry Research Association in Ahmedabad, India. The leave will begin July 1 when Dr. Wakeham departs for his new assignment. A.T.I.R.A. is an industry-sponsored textile research organization receiving partial support from the Indian Government, much like Shirley Institute in England. It is staffed by over 200 scientists, technicians, and service personnel, and housed in a modern four-story air conditioned building complete with pilot plant and auditorium. Most of the work is on cotton, with some research on rayon utilization. The location in the outskirts of Ahmedabad places the laboratory close to 75 mills, the largest concentration of textile plants in the country. The position at A.T.I.R.A. is being jointly financed by the U. S. International Co-operation Administration through a contract with Frank Mayer Engineering Co., consulting engineering firm in Los Angeles. Dr. Wakeham's function will be to co-ordinate and direct the program at A.T.I.R.A. and to train an Indian understudy to be the permanent director of the laboratory.

William H. Ruffin, president of Erwin Mills Inc., Durham, N. C., has been elected an honorary member of the national council, alumni executive body of Duke University.

Five Anderson, S. C., textile executives have been elected to three-year terms on the board of directors of the Greater Anderson Community Chest. They are: Andrew B. Calhoun, president of Equinox Mill; Dan M. Leister, division manager for J. P. Stevens & Co. Inc.; Chauncey W.

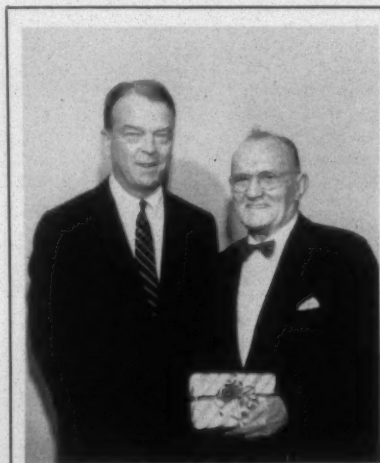
Lever, director of public relations for Abney and Erwin Mills; Joe J. Lyons, executive vice-president of M. Lowenstein & Sons Inc.; and Richard W. Muzzy, plant manager for Owens-Corning Fiberglas Corp. Mr. Leister was also elected second vice-president.



Frank W. Perry

Stein, Hall & Co. Inc. has announced the appointment of Frank W. Perry as manager of its domestic starch department. In his new position, Mr. Perry will be located in the firm's New York office and will work in close co-operation with the company's various industry departments and branch offices in promoting the sale of starches and dextrins. Mr. Perry was manager of the company's Charlotte, N. C., branch for the past eight years, and played an important role in the firm's steady growth and progress in the South. Joining Stein Hall in 1939, he also has held posts as chemist and as manager of the textile department.

The appointment of John M. Terpay to the sales staff of the nylon staple division of Industrial Rayon Corp. has been announced. Mr. Terpay previously was employed for four years as a laboratory technician in the company's high polymer re-



Cheatham, Greer

GEORGE W. GREER, overseer of weaving at Dundee Mills Inc., Griffin, Ga., retired June 8 after 62 years of continuous service with the company. Mr. Greer began work at Dundee's No. 1 plant, known at that time as Kincaid Mfg. Co., in 1895 at the age of 14. He started as a general laborer in the weave room and progressed steadily until he was made overseer of corduroy weaving 33 years ago. He was honored at a dinner at Lake Dundee in Griffin June 8 in celebration both of his retirement and his 75th birthday. A gold watch and a retirement check were presented to him at the dinner in recognition and appreciation of his years of valued service. Shown congratulating him (above) is J. M. Cheatham, president of Dundee Mills.

PERSONAL NEWS

search division. A graduate of Western Reserve University, he will be attached to the company's sales offices in New York.

Dr. Paul B. Stam has joined Burlington Industries to head a program of research that will concern itself primarily with cotton fiber. His title is that of area research director. The new research official comes to Burlington from Dan River Mills where for the past five years he has been assistant director of research.

W. F. Lineweber has been elected president of W. D. Dodenhoff Co. of Greenville, S. C., replacing Mrs. W. D. Dodenhoff, now chairman of the board of directors as well as treasurer. The new president was vice-president and general manager previously. Other newly-elected officers are A. V. Moody, vice-president in charge of machinery sales; Carl Baker, vice-president in charge of materials handling and supply sales; and H. C. Hard, secretary.

Ernest Folger Jr., assistant secretary of J. P. Stevens & Co. Inc., has assumed the responsibilities of administrations of the offices of Groups 1 and 2 of the Stevens cotton and spun fibers division at Greenville, S. C. . . . H. B. Croxton has joined the comptrollers staff as head of the Greenville data processing center, being responsible for all accounting and related functions for Groups 1 and 2.

New officers were elected June 18 by Pacific Mills and Burlington Mills, both member companies of Burlington Industries Inc. Thomas S. Tolar of Greensboro was named president of Pacific and Michael M. Devcich, H. Cleon Estes and E. H. Hines were named as vice-presidents, in addition to David A. Arthur who continues as a vice-president. Joseph A. Golden continues as the executive vice-president of Pacific Mills. Elected as vice-presidents of Burlington Mills were Arthur L. Burnet of Greensboro and Thomas W. Evans of New York City. Mr. Tolar, associated with Burlington Industries for 20 years, has served in numerous manufacturing capacities, having headed up at various times the company's weaving, narrow fabrics, hosiery and other manufacturing operations. Since 1955 he has served as an executive vice-president of Pacific. Mr. Devcich has been associated with Pacific's sales department for more than 25 years. Since 1950 he has headed up men's wear sales and in 1954 was named general sales and merchandise manager of the men's wear, worsted and blends, and synthetics departments of Pacific. Mr. Estes is and has been for several years manager of the Rhodhiss, N. C., division of Pacific. Mr. Hines was formerly with Amerotron as manager of its Raeford, N. C., and Clarksville, Va., operations, and prior to 1955 was division manager of worsted operations for Deering Milliken. Mr. Burnet joined Burlington in 1942 following 12 years of association with other textile concerns. In 1946 he was named manager of Burlington's spun spinning division, and in 1955 was named as an area manufacturing manager. Mr. Evans, born in New Zealand, was associated with Pacific Mills from 1939

to 1948 as head of the men's wear division. In 1948 he joined Burlington as sales manager of its men's wear division.

OBITUARIES

Charles E. Baldwin, 79, a leader in rayon development, died recently at Wilmington, Del. Mr. Baldwin had been associated with the old General Artificial Silk Co., Lansdowne, Pa., which was the first firm to make viscose-process rayon in the U. S. He joined American Viscose Co. when it took over the process. He retired in 1935.

H. C. Cobb Sr., 65, retired textile executive of Granite Falls, N. C., died recently. Mr. Cobb was with Rhodhiss Mills, later to become Pacific Mills, 45 years. He is survived by his widow, two sons, three daughters and a sister.

Bernard Milton Cone, 81, retired board chairman of Cone Mills Corp., Greensboro, N. C., died last month after an overnight illness. Mr. Cone was the last of three brothers who built Cone Mills, and was lone surviving member of a family of 13 born to Herman Cone. A native of Baltimore, Md., Mr. Cone was brother of the late Moses and Ceasar Cone, who founded Cone Mills. He was admitted to the bar in New York in 1897 after obtaining degrees from Johns Hopkins and Columbia University. In 1904 he gave up law and joined his brothers in building Cone Mills Corp. He later became treasurer of Proximity Mfg. Co., served as director of the school in the mill area and headed the company's welfare department. He became president of Proximity in 1917, continuing until 1938. He then was named chairman of the board of Cone Mills and served at this post until he retired in 1950. Survivors include his widow and a son.

W. M. Hagood Jr., 67, former vice-president of Glenwood Mills, Easley, S. C., and a director of Pickens (S. C.) Mills, died May 15. Mr. Hagood had been with Glenwood Mills until 1948. Surviving are two children and two sisters.

Robert Hecht, 67, internationally known cotton broker, died last month in Atlanta, Ga. Mr. Hecht retired in July 1955 as chairman of the board of International Corp., cotton brokerage firm. Since then he had operated several companies in the import business under the name of Robt. Hecht Associates. His widow, a daughter and a brother survive.

H. H. Houston, assistant secretary of Palmetto Yarn Mills Inc., Pageland, S. C., died recently in Pageland.

James Page Jackson, 27, sales representative for Groves Thread Co. Inc., Gastonia, N. C., was killed recently in an automobile collision near Asheville, N. C. A native of Gastonia, Mr. Jackson had represented Groves Thread in Tennessee and western North Carolina about 4½ years.

Henry James Murphy, 79, retired director of the manufacturing and research department of Bibb Mfg. Co., Macon, Ga.,

died May 18. Mr. Murphy joined Bibb in 1912, and had been retired since March 1, 1954. Surviving are his widow, a son and a brother.

Fred C. Odell, 75, president of J. M. Odell Mfg. Co., Bynum, N. C., and secretary of Kerr Bleaching & Finishing Works Inc., Concord, N. C., died last month following a period of declining health. Mr. Odell had been in the textile business since 1902. Survivors include a nephew, John K. P. Odell, president and treasurer of Kerr Bleaching & Finishing Works.

Nathaniel Reeves, 73, former official of Osage Mfg. Co., Bessemer City, N. C., died May 30. Mr. Reeves had been retired several years. He is survived by his widow and three daughters.

Thomas Scott Roberts, 77, chairman of the board of Adelaide Mills, Anniston, Ala., died last month. Mr. Roberts joined Adelaide in 1906 and was elected president a few years later, directing the company's activities for half a century. He served as president of the Alabama Cotton Manufacturers Association for a number of years and served in various capacities with the Georgia-Alabama Textile Traffic Association and the Associated Industries of Alabama. Surviving are his widow, two sons, a daughter and a sister.

Joseph W. Symmes, 65, assistant superintendent, second Shift, Mill No. 2, Goodyear Clearwater Mills, Rockmart, Ga., died recently in Atlanta, Ga. A native of Manchester, England, Mr. Symmes had been connected with Goodyear for a number of years, being employed in South America and Decatur, Ala., before being assigned to Rockmart in February 1955. He is survived by his widow, a daughter and two sons.

Charles Edgar Ware Sr., 61, former superintendent of Abernathy Yarn Mills, now Trenton Cotton Mills, Gastonia, N. C., died recently in Gastonia. Survivors include his widow, a son, a daughter, four brothers and seven sisters.

Amidas A. Whitener, 82, president and treasurer of Rhodes-Whitener Mills Inc., Taylorsville, N. C., and Rudisill Spinning Mills Inc., Lincolnton, N. C., died June 4 in Hickory, N. C. A former mayor of Hickory and twice a candidate for the U. S. Senate, he is survived by four sons and three daughters.

Arthur A. Williams, 78, board chairman of Graton & Knight Co., Worcester, Mass., manufacturer of textile leathers, died June 9. Mr. Williams had served as chairman of the board of the firm since 1942. He also served as president from 1944 to 1952, when his youngest son, David S. Williams, took over. Other survivors include his widow, a daughter and two other sons.

Robert C. Williams, 70, retired general manager of The Virginia Woolen Co., Winchester, Va., died May 22. Mr. Williams, who retired two years ago, first entered the woolen industry with Crawford Woolen Mills, Martinsburg, W. Va., when he was 20 years old. Surviving are his widow and three daughters.

Carolina Yarn Association

Ernest Chapman & Joe Bales

Take Golf And Skeet Honors

MEMBERS of the Carolina Yarn Association and their guests had a whale of a time at the group's annual outing last month at Pinehurst, N. C. Highlighting the event, as per usual, were the golf tournament and the skeet shoot. The golf tourney, a 36-hole Callaway System event, attracted 438 participants, a record number, and 132 entries were posted in the skeet shoot.

Grabbing off both low gross and low net honors in the golf tourney was E. E. Chapman of Tower Hosiery Mills, Burlington, N. C. He fired rounds of 68-76 for a gross score of 144 and a net of 139. He tied with Roy A. Burd Jr., Chipman La Crosse Hosiery Mills, for low net honors and won the top prize in a drawing. In addition to winning the event's silver trophy, Mr. Chapman picked up a portable television set for his efforts.

Other low gross leaders included:

| | |
|--|-----|
| W. W. Sharp Jr., Acclaim Hosiery Mills | 147 |
| Decatur Cunningham, Hemphill Co. | 148 |
| A. Gaither, Ridgeview Hosiery Mills | 148 |
| J. A. Davant, Cross Cotton Mills | 151 |
| F. Gerli | 152 |
| Lanier Branson Jr., Duffy Silk Co. | 152 |
| Paul Russell, Russell Hosiery Mill | 153 |
| H. E. Cooper, U. S. Rubber Co. | 154 |
| Cy Girard, Central Yarn & Dyeing Co. | 154 |

Pacing the low net winners were:

| | |
|-----------------------------------|-------------|
| J. H. Crenshaw, Du Pont | 176-37-139 |
| Elton Crenshaw, Drayton Mills | 236-97-139 |
| Bill Franck, Sale Knitting Co. | 193-54-139 |
| Joe Pell, Angle Silk Mills | 242-103-139 |
| R. E. Smith, The Chemstrand Corp. | 229-90-139 |
| Jack Gaw, Waverly Mills Inc. | 183-44-139 |
| Bill Warmath | 229-90-139 |
| R. A. Jones, Du Pont | 240-101-139 |

Hole-In-One

J. Frank McCrary, McCrary Hosiery Mills, Asheboro, N. C., received a special prize for the outing's only hole-in-one. Mr. McCrary aced the 162-yard seventh hole of the No. 1 course, using a three-iron.

Skeet Champions

Winning top honors in the skeet shoot was Joe Bales of Maurice Mills, Thomasville, N. C. His regulation total of 71 out of 75 left him tied with P. L. Reed Jr. of Marriner

& Co., and in a shoot-off he copped top honors by bagging 25 out of 25. He was awarded the event's silver cup and a large silver serving tray.

The shooting was divided into five classes—A, B, C, D and E. Other winners in the Class A group included:

| | | | |
|------------------|----|----------------|----|
| F. W. Warrington | 70 | Brad Thomas | 66 |
| F. L. Peak | 70 | Jack Holbrook | 66 |
| Eugene Cross | 69 | D. R. Johnston | 66 |
| Allen Mebane | 69 | Harry Wade | 65 |
| Bill Wood | 69 | Eugene Timanus | 63 |
| Jim Rogers | 69 | H. Amos | 62 |
| Von Oehmig | 69 | Nat Ayer | 62 |
| | | R. F. Lunday | 62 |

Class B winners:

| | | | |
|-----------------|----|--------------------|----|
| Clay Timanus | 61 | Amos Ragan | 56 |
| Harry Curlee | 59 | Bill Dodson | 56 |
| Fred Hallenbeck | 58 | Bill Austin | 56 |
| Joe Ballentine | 58 | Henry T. Cosby | 56 |
| Dave Long | 57 | G. W. Dudley | 55 |
| Henry Kelly | 57 | George Galphin | 55 |
| A. P. Gumaer | 56 | W. K. Stringfellow | 55 |
| Bob Walker | 56 | L. B. Allen | 54 |



Chapman, Causey, Bales

THE WINNERS!—Displaying the nonchalance synonymous with sporting champions, Ernest Chapman and Joe Bales pose quietly in the winners' circle following awards made at last month's annual outing of the Carolina Yarn Association. Lending added dignity to the occasion is Frank Causey of American Thread, C.Y.A. president.



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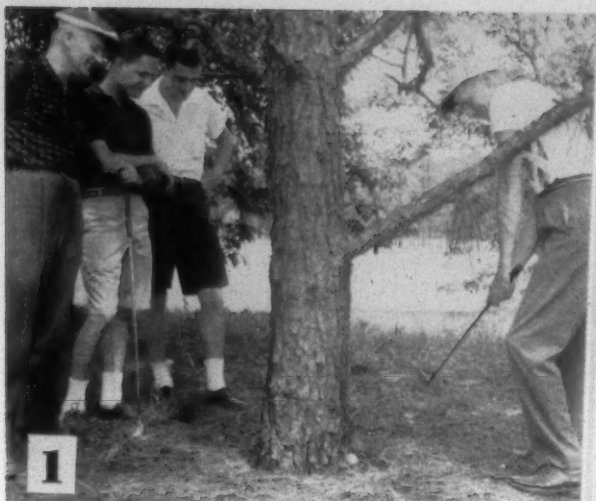
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(1) Getting in a few practice licks on the driving range: Jack Wysong, Knitmode Mills Inc. (2) "Who said they could play through?" asks Frank Timson, Crompton-Richmond Co.; Frank Lee, Better-Knit Hosiery; Bill Allen, Barber-Allen Hosiery; and Sam Carr, Belmont Throwing Corp. (3) "I think we've already played this hole," Claude Hayden of American Enka tells Frank Barrie, Universal Winding; William Ix, Frank Ix & Sons; and Eldon Stowell, Universal Winding. (4) Everybody's pleased with the bets just made: J. V. Hazlett Jr., Du Pont; Howard Rollins, Dover Mill Co.; Howard Peck, Du Pont; and Jack Dover III, Dover Mill Co. (5) "Where I come from they call this a gimme," remarks Jack Wysong lining up an eight-footer. Looking on uncharitably are Frank Deaver and Bob Phillips, Trust Company of Georgia, and Bill Barnhardt, Barnhardt Elastic Corp. (6) Hubert Gilbert of Catawba Hosiery almost sank this one despite an optical whammy applied by Jim Boger of W. H. Crenshaw.

(1) Talking over the previous night's activities are N. P. Murphy, Stonecutter Mills; Sam Lavitt, Knit-Sox Knitting Mills; Julius Ramsey, Waldensian Hosiery; Adin Rucker, Stonecutter Mills; and Herbert Crenshaw, Stonecutter Mills. (2) Joe Bales picks up the winner's trophy in the skeet shoot while Ernest Chapman (3) accepts the golfing trophy from Charlie Wolcott, chairman of the prize committee. (4) Keeping a watchful eye on the foursome ahead are J. M. Tully, Roanoke Mills; Fully Huntley, West Knitting Mill; L. B. Allen, Comer-Avondale Mills; and E. A. Sale, retired, formerly of Sale Knitting Co. (5) Soaking up the sunshine are Herschel Harris and Freeman Harris, both of Standard-Coosa-Thatcher, and Harold Mahon, Greensboro, N. C.

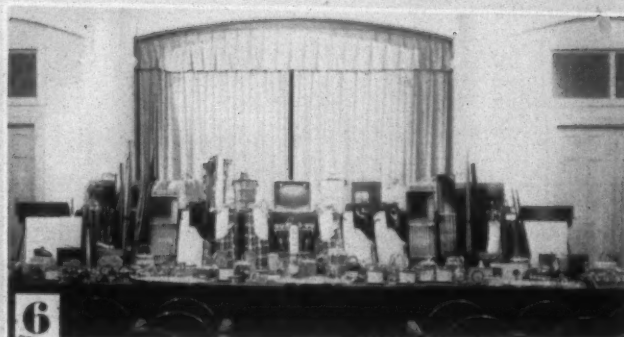
(7) A classic but (alas) unquotable remark was made at this point by Charlie Wolcott of Leon-Ferenbach Inc. Giving him no moral support whatsoever are W. A. Aldridge and O. B. Ashburn, both of Granite Hosiery. (8) Getting a few pointers from W. J. Yates of Johnston Mills Co. are W. S. Foster, Wright Knit Hosiery; W. S. Foster Jr., Hazel Knitting; and Charles New, Deering, Milliken.



(1) Some mighty good shooting was displayed by some 132 participants in the skeet shoot. Just finishing a round (2) are Joe L. Smith, Barnhardt Bros. Co.; Charles Boger, Barnhardt Bros.; W. F. Wyatt, Wyatt Knitting Co.; and C. E. Crutchfield, formerly of Burlington Industries. Waiting their turn (3) are H. R. Wade, Textile Machine Works; Dick Grey, Richard Grey Hosiery; Buddy Holt, Caswell Knitting Mills; D. A. MacKenzie, Chester H. Roth Co.; and L. G. Avery, Wyatt Hosiery Mills. Right in the midst of a round (4) are Loring Reid, Marriner & Co.; Eugene Timanus, Spun Fibers; Sam Rankin, Ramseur Interlock Knitting Co.; R. J. Fontaine, Ramseur Worsted Mills; and Clay Timanus, John L. Stickley & Co.

(1) Jack Gaw of Waverly Mills liked this type shot so well he played several of them. Enjoying the shade along with him are K. W. Horne, Hornwood Warp Knitting Corp.; and Louis Cramer and Francis Price, both of American Viscose Corp. (2) Back on the course but two holes behind their caddies are Walter C. Comer, W. A. Aldridge, O. B. Ashburn and Charlie Wolcott. (3) "Where'd those girls come from?" wants to know S. S. Flynt, Chatham Mfg.; Ed Reid, Sonoco Products; Tom Smotherman, American & Efird; and W. J. Leath, Chadbourn-Gotham. (4) "Shut up and look at the camera," Bill Blanton of Acclaim Hosiery tells Henry Millis, Grayson-Millis Hosiery; Bill Sharp, Acclaim Hosiery; Harriss Covington, Harriss & Covington Hosiery; and Jim McCormick, Holt Hosiery. (5) "With this thing we just play a few holes on each course," reports W. G. Vetterlein, Aberfoyle Mfg.; Walter M. Brown, Brown Hosiery; J. S. Kenrick, Aberfoyle; and Thomas B. Hill, Rusch & Co. (6) Cy Girard of Central Yarn & Dyeing Co. was having his best round ever until J. J. Chamberlain, Chemstrand Corp., and D. R. LaFar, LaFar Mills, told him it was only the putting green. (7) Having a moment of meditative silence before going off the first tee are McKibben Lane, G. H. Waterman Co.; Ralph Sanders, Morgan Cotton Mills; Jack Scott, Carlton Yarn Mills; and William F. Franck, Sale Knitting Co. (8) Tom Neal, Graham Hosiery; John Renger, Karl Lieberknecht; Paul Templin, B. F. Goodrich; and Charlie Donohoe, Duplan Corp., come in tired but pleased with their play. (9) "Warming up" for a fast 18 are Joe Cobb, Osage Mfg.; Cowles Gaither, Ridgeview Hosiery; Albert Gaither, Ridgeview; and Frank McKay, Duplan Corp.





Joe Bales (1), offered these suggestions to runners-up in the skeet shoot: "Always shoot straight from the shoulder . . . keep your powder dry . . . hit what you're aiming at." Prizes at this year's outing (2) and (6) were described by many as the most beautiful and most valuable ever offered at the event. Ernest Chapman (3), attributing his win in the golf tourney to clean living, said he was confident of winning the trophy the moment the prize committee called his name. He consid-

ers luck the most important element of his game. "I'm lucky enough to get to play four times a week." Playing the most efficient golf, at least for one hole, was J. Frank McCrary, McCrary Hosiery Mills (4). He was awarded a new set of clubs (?) for a 162-yard, three-iron hole-in-one on the seventh hole, No. 1 course. Charlie Wolcott of Leon-Ferenbach, chairman of the prize committee, and Frank Barrie, Universal Winding Co., were in charge of prize presentations (5).

Class C winners:

| | | | |
|--------------------------|----|-----------------------------|----|
| T. L. Ritchie | 48 | Charles Boger | 53 |
| Van Smith | 47 | Joe Smith | 53 |
| M. B. Crigler | 47 | Earl Wentz | 53 |
| Vernon Kirkman | 46 | George Lewis | 52 |
| W. A. Cocke | 46 | Ed Taws | 51 |
| Glen Smith | 44 | Joe Foil | 50 |
| Buddy Holt | 44 | Sam Rankin | 49 |
| Guy Sowden | 44 | C. J. Mills | 48 |
| | | C. E. Crutchfield | 48 |

Prizes

Always an outstanding feature of the annual outing is the quantity and quality of prizes offered. This year's array included such worthy winnings as the aforementioned portable television set and silver serving tray, outdoor grills, matched golf irons and woods, rifles, vacuum cleaners,

luggage, a high fidelity phonograph, fishing equipment, electric appliances, and on and on. Charlie Wolcott, chairman of the prize committee, and Frank Barrie, Universal Winding Co., were in charge of the awards. The process took over two hours, and rang down the curtain on this year's meet.

Other Golf Scores

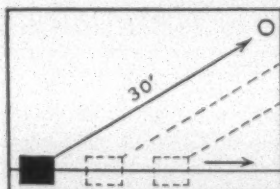
Other low net winners in the golfing tourney included:

| | | | |
|-----------------------------|-------------|------------------------------|------------|
| C. F. Goldsmith | 197-57-140 | W. W. Greene | 163-23-140 |
| J. J. Chamberlain | 225-85-140 | Paul Tamplin | 206-66-140 |
| Archie Shuford | 193-53-140 | Jack Slane | 176-36-140 |
| Steve E. Soltis | 185-45-140 | S. W. Bartholomew | 199-59-140 |
| Joe Eble | 192-52-140 | John C. Richards Jr. | 213-73-140 |
| W. F. Williamson | 243-103-140 | Paul Shipman | 221-81-140 |
| Jim Holt | 207-67-140 | Thomas R. Brady | 236-96-140 |
| A. E. Booker | 155-15-140 | Mead H. Willis Jr. | 163-23-140 |
| | | T. Clarkson Worth | 157-17-140 |

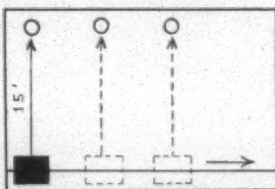


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Cleans at Less Cost with greater efficiency. The Allred needs only a $\frac{1}{2}$ horsepower motor for effective air delivery. (Available also with 1 H.P. motors for special applications.) Its head-on air blasts have been test-proven to clean more effectively than other approaches.

Patented Index Feature progressively adjusts the fan to clean selected areas in a pre-determined pattern. Pattern is easily set and varied for different needs.

Added Advantages. The Allred fan oscillates as it travels along the track to produce a varying angle of blow at each automatically adjusted setting. For further airflow control a U-Shield with adjustable vanes is furnished.

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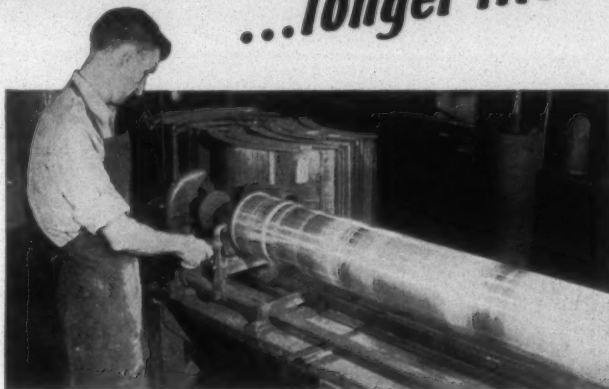
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Dynamically balanced for better performance—reduce vibration to an absolute minimum.

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WASTE CHUTES

SLIVER PANS

BACK TINS

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MILL NEWS

LAGRANGE, GA.—Callaway Mills Co. has announced that its Pineview Division has been consolidated with its Elmrose and Hillcrest Divisions, and that the company has established a centralized purchasing department to serve all plants. In the integration of the Pineview Division, the Manchester (Ga.) Plant has been transferred to the Hillcrest Division, which contains also the Calumet, Hillside and Valway Plants. The Milstead (Ga.) Plant has been transferred to the Elmrose Division, which also includes the firm's Unity, Unity Spinning and Elm City Plants. The new purchasing department, temporarily located in the offices occupied by the Pineview Division, is headed by Lewis Price, former general manager of the Pineview Division, whose title will be vice-president and director of purchases.

GREENSBORO, N. C.—Pacific Mills, a member company of Burlington Industries, has acquired two plants from the Amerotron Corp.—the latter's spinning and weaving plant at Raeford, N. C., and the Clarksville, Va., finishing plant. Financial details of the transaction were not disclosed. According to reports, the two plants will be operated under a new corporation as a member of Burlington Industries. The new corporation would be known as Raeford Worsted Corp., it is said. The spinning and weaving plant at Raeford is listed as having 40,320 spindles and 288 looms.

FLETCHER, N. C.—Contract for construction of an addition to Cranston Print Works, here, has been awarded to Daniel Construction Co., Greenville, S. C. The addition, to cost an estimated \$400,000, will be used to provide room for additional equipment, it is said.

TROUTMAN, N. C.—Troutman Spinning Co. has applied for a state charter of incorporation to deal in spinning cotton, wool, rayon and other fibers. The new corporation would have authorized capital stock of \$100,000 and would be a wholly-owned subsidiary of Pine State Yarn Mills here.

GREENVILLE, S. C.—Piedmont Plush Mills, here, is constructing a 6,000 square feet addition between its finishing plant and the plant office. The addition will provide some 25 per cent more floor space for the finishing operation, but it will not mean an increase in over-all production, it is said.

BELMONT, N. C.—Belmont Throwing Corp. will complete a \$100,000 modernization program about July 1 that includes the installation of new equipment to handle all types of twisting, plying and winding of both fine and coarse yarns. The company is currently running at capacity on yarns for the weaving, hosiery and upholstery trades, it is said.

KINGSTREE, S. C.—Kingstree Mfg. Co. here, formerly known as Princeton Worsted

Mills, is in process of starting production in weaving of woolen fabrics, according to Roger Milliken, president of Deering, Milliken & Co., which recently purchased the plant. Equipment already in the mill will be used, Mr. Milliken reports, and there are no plans for additional equipment.

ANDERSON, S. C.—Construction has begun on a \$500,000 warehouse, office and laboratory here to house cotton buying, grading and testing activities for all plants of M. Lowenstein & Sons Inc. The building will be located on Highway 29 South on property already owned by the company. It is expected to be completed in August.

SHELBY, N. C.—The J. W. Wood Co. of Stoughton, Mass., manufacturer of elastic webbing for specialty wear, has announced that it will construct a \$250,000 plant here. The plant will initially employ from 50 to 100 persons.

ROCKINGHAM, N. C.—The Rockingham and Statesville, N. C., plants of Beaunit Mills Inc. are trading some weaving equipment to create "greater intra-company efficiency," the company reports. Approximately 100 looms and supplementary equipment of the Rockingham plant are being transferred to Statesville and about 240 looms at Statesville are being shifted to Rockingham.

JACKSON, MISS.—The Gulf States Textile Mills, a Mississippi corporation, has been formed to rehabilitate and operate Magnolia (Miss.) Textiles Inc., formerly owned by the R. D. Sanders estate. The Magnolia plant was purchased last November along with three others (at Winona, Kosciusko and West Point, Miss.) by Joe L. Moore Investment Co. of Gadsden, Ala. Gulf States Textile Mills has offered 70,000 units of capital stock at \$10 per unit to finance reactivation of the Magnolia plant.

BELTON, S. C.—Belton Yarn Mill Inc., a new subsidiary of Bigelow-Sanford Carpet Co., has purchased a small plant here formerly occupied by the Belton Bagging Co. The plant will be converted to the production of carpet yarns.

ANDERSON, S. C.—Seven plants of The Abney Mills organization have been presented safety award certificates by the South Carolina Department of Labor. They are: Belton Plant, Belton; Ladlassie Plant, Anderson; Southside Plant, Anderson; Poinsett Mill, Greenville; Brandon Rayon Mill, Greenville; Courtenay Mills Plant, Newry; and the Woodruff Plant, Woodruff. The plants received the certificates for having maintained outstanding safety records throughout 1955.

ATLANTA, GA.—A group of industrialists headed by Julius W. Abernethy of Newton, N. C., has acquired stock control of Fulton Bag & Cotton Mills for approximately \$10

million. A new board of directors has been elected, headed by Mr. Abernethy. Other members include David Berdon of New York City; I. T. Cohen of Atlanta; Thomas L. Kaplin of Toledo, Ohio; Joseph Karp of Cincinnati, Ohio; Jay Levine of New York City; Bernard A. Mitchell of Chicago; Moses Richter of Mount Gilead, N. C.; A. A. Shuford Jr. of Hickory, N. C.; and Herbert L. Werner of New York. The board's first action was to re-elect a majority of the officers of the old company.

DURHAM, N. C.—Several Erwin Mills plants have been selected by the North Carolina Labor Department to receive the department's special safety awards. Plant No. 5, Erwin, N. C., received the safety award of the Labor Department for reducing its frequency rate during 1955 40 per cent below that of 1954 (actual reduction was 85 per cent). Plant No. 2, Erwin, N. C., will receive a similar award. Its actual reduction was 72 per cent. Plant No. 3, Cooleemee, received the safety award for its actual reduction of 43 per cent, and the Cooleemee Finishing Plant received a similar award for its actual reduction of 74 per cent. Durham Plant No. 6 received the Labor Department's award for not having a disabling injury during 1955.

GREENWOOD, S. C.—Abney Mills will build a 150,000 square foot warehouse in Greenwood for the storage of cotton and rayon. Storage capacity will be for 35,000 to 40,000 bales of cotton and rayon. The one-story, 18 foot high warehouse will be located near the Grendel Mill. It will be constructed of tilt-up concrete slab walls, reinforced concrete floor, and the roof will be constructed of long-span bar joist with wood decking and 20-year tar and gravel. The warehouse will consist of 15 sections, each of which will be 200 feet deep and 50 feet wide. The loading platform will be 40 feet wide and 750 feet long. The building will be protected by a sprinkler system throughout. The warehouse will be served by both C. & W. C. and Seaboard Railroads, and truck lines. It will be available for use by all of the Abney Mills plants in South Carolina. The Daniel Construction Company will construct the warehouse. Work will be completed in September.

DECATUR, ALA.—The cotton spinning unit of Goodyear Decatur Mills, here, has been liquidated and all machinery is being sold. The unit has been closed since 1952. Sale of the cotton spinning unit will in no way affect the rayon and nylon twisting operations of the plant, it is said. All equipment and machinery is being sold by Comer Machinery Co., Atlanta, Ga.

MARTINSVILLE, VA.—Consolidated Textile Co. has announced that it will close its print cloth plant here in August. The plant, employing 290 workers and equipped with 21,024 spindles and 500 looms, is being closed for liquidation purposes, ac-

cording to Lester Martin, president. He attributed the action to competition from Japanese imports. The company's Lynchburg, Va., print cloth mill, equipped with 1,800 looms and employing 950 workers, is currently on a four-week shutdown for the same reason, Mr. Martin said. Last year the company closed mills at Shelby and Kings Mountain, N. C.

PROVIDENCE, R. I.—Royal Little, chairman, and Robert L. Huffines Jr., president of Textron Inc., announced last month that, subject to a favorable tax ruling from the Internal Revenue Department and stockholders' approval, the textile operations of Textron Inc. will be spun off on a tax free basis as a wholly autonomous, independently-operated enterprise. Since the merger of the three textile companies in February 1955 (Textron Inc., Robbins Mills Inc., and American Woolen Co.), the continued success and growth of Textron's plan of diversification in unrelated industries have prompted many stockholders and directors to suggest that Textron spin off its textile operations if possible and confine its activities in the future to the acquisition and management of non-textile business. It is proposed that Mr. Huffines will be the chief executive officer of the new company which will be amply financed on a sound and favorable basis. In order to maintain a completely objective and arm's length

relationship, Mr. Huffines is being succeeded by Mr. Little as president of Textron Inc. and Mr. Huffines will succeed Mr. Little as chairman of Amerotron's board. As presently planned, no officers, or directors of Textron would serve the new Amerotron Corp. in any capacity. In March of 1953 Textron spun off Indian Head, a specialized cotton operation, with substantial advantages to the stockholders. While the Amerotron Corp. is far larger and more diversified in its operations than Indian Head, it is believed that a similar high leverage capitalization will produce equally satisfactory results for stockholders. There are still many details both legal and financial that must be solved. It may take several months before final arrangements can be perfected.

NEWMAN, GA. — Directors of Newnan Cotton Mills, here, and of Mount Vernon Mills, Baltimore, Md., have approved a plan whereby Mount Vernon will acquire all the liabilities and assets of Newnan for Mount Vernon common stock on a share-for-share basis. The proposal, if approved by Newnan stockholders, would make Newnan a division of Mount Vernon.

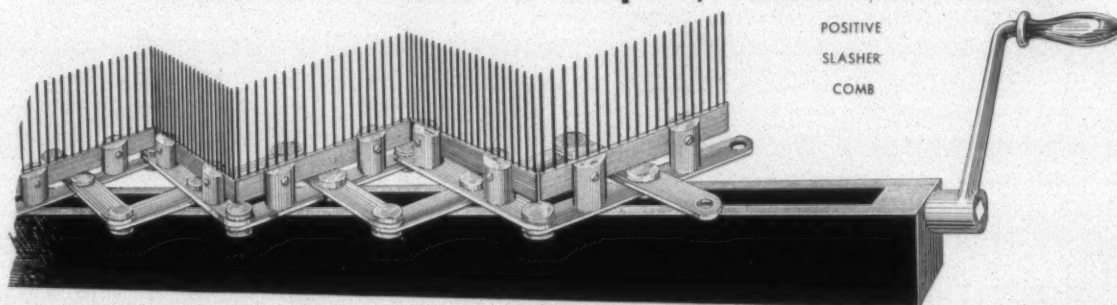
DUBLIN, GA.—J. P. Stevens & Co. officially opened its new Nathaniel Plant here June 4. The plant covers some 220,000 square feet and will produce fancy stock-

dyed apparel wools. Full capacity of 96,000 square yards a week on five-foot rolls is expected to be reached by the middle of July, just a year from the day when ground was broken. The new plant is located adjacent to the company's Dublin Plant, built in 1947.

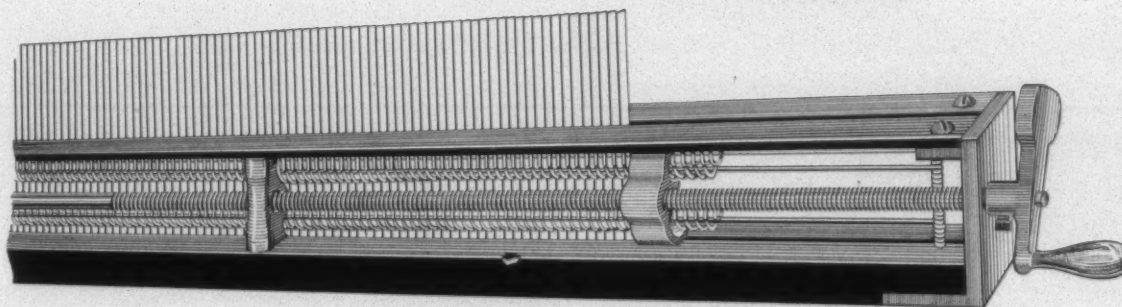
LIBERTY, S. C.—Woodside Mills is spending more than \$1 million this year to complete conversion of its plant here to combed dyed fabrics. The project includes both new construction and the installation of new equipment and machinery.

DANVILLE, VA. — Ely & Walker Dry Goods Co. has sold its 16 per cent interest in Woodside Mills of Greenville, S. C., to Dan River Mills here. The transaction is in line with negotiations whereby Dan River is seeking to acquire Iselin-Jefferson Co., which has a controlling interest in Woodside. The stock deal would bring together Dan River, Iselin-Jefferson Co. Inc., Iselin-Jefferson Financial Co., Woodside Mills and Alabama Mills. Directors of the latter, operating eight mills in Alabama, have approved the transaction, which would be effected by a stock exchange—one Dan River share for two of Alabama Mills. If the transactions go through, a special meeting of Dan River stockholders would be required to approve the stock exchanges involved.

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SCREW TYPE SPRING EXPANSION COMB

We manufacture both the tape type spring expansion comb and the screw type. Dents can be furnished in oval stainless steel, tempered steel or carbon steel. Our combs are made with the finest spring wire, insuring even and smooth as well as maximum expansion and contraction. Dents furnished any height above frame desired. The percentage between maximum expansion and minimum contraction figures about 30%. Furnished for any make beamer, warper or slasher.

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MINTOL disinfectant has a coefficient of 9. Diluted half a cup to the pail of water, it meets the new Use Dilution Confirmatory Test.

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Earl Heard Keynotes Phi Psi Event

"The cotton system of spinning yarns has no competitor in all industry from a cost standpoint. The reason is that through the years we have so developed and simplified our processes that a spinner can attend 1,500 to 3,000 spindles or producing units," Earl Heard, vice-president of research, West Point Mfg. Co., West Point, Ga., and past Grand Council president, told 150 delegates attending the 53rd annual convention of Phi Psi Fraternity on the campus of Alabama Polytechnic Institute, Auburn, recently.

"The cotton textile industry is the oldest, the most widely practiced, and the most competitive of any factory method of forming yarns from fibers," he said at the banquet winding up the meeting.

"The state of development of cotton spinning was not accomplished in a span of a few years, but required centuries. The cut-and-dried methods, along with reasoning and opinions based on prejudice and superstition, to a large measure, have been responsible for this slow development. These methods have, nonetheless, produced a fantastic industry that defies and intrigues the scientist. All of these factors have caused the textile industry to be very slow in recognizing the value and need of scientific methods," the speaker went on.

Mr. Heard emphasized that "The phenomenal growth of the synthetic industry has had a tremendous effect on the textile industry. Spinners and weavers of cotton yarns and fabrics are resisting the invasion of synthetic fibers by endeavoring to improve the quality of cotton products and at the same time to produce them at a cost that will be attractive to the consumer. Here . . . the textile manufacturer is turning to scientifically trained people for help," he continued:

"The manufacturer is asking the cotton breeder for better cottons, the machinery manufacturer for better machinery, the textile engineers and technologists for better methods, procedures, products and quality control, the chemist for better fabric finishes and a cotton fiber that has been modi-



Farley, Colby, Wigington, Long

Phi Psi national officers who attended the fraternity's national conference at the Alabama Polytechnic Institute are: Mortimer T. Farley of Taylor, Symonds, Co., Boston, Mass., treasurer; Willard A. Colby, Emery Industries, Charlotte, N. C., president; John T. Wigington, American Cotton Manufacturers Institute, Clemson, S. C., executive secretary; and George F. Long, Harchem Division, Wallace and Tiernan Inc., Belleville, N. J., vice-president.



Stumberg, Lanier, Collier, Draughon

Honorary initiates of Phi Psi, national textile fraternity, who became members of the society during the group's 53rd annual convention held at the Alabama Polytechnic Institute on April 19-21, are: B. G. Stumberg, general agent, Tallassee Mills; Joe Lanier, president of West Point Mfg. Co.; P. N. Collier, general manager and vice-president, Elmrose Division, Callaway Mills; and Dr. Ralph B. Draughon, president of A.P.I.

fied chemically to give it many desirable qualities which it does not naturally contain," Mr. Heard stated.

It was pointed out in the talk that "test methods and testing machines can be blamed for much lack of progress. The technologist has felt a keen need for testing instruments that could give him information concerning raw stock and processing variables."

Mr. Heard told the group that seven qualities were necessary for sound scientific training—aggressiveness, creative imagination, judgment and sense of balance, accuracy and capacity for detail, leadership and organizing ability, cooperativeness and optimism.

Four honorary members were initiated into the fraternity during the three-day meeting. They were Dr. Ralph B. Draughon, president of A.P.I.; Joe Lanier, president of West Point Mfg. Co.; P. N. Collier, general manager and vice-president, Elmrose Division, Callaway Mills; and B. G. Stumberg, general agent, Tallassee Mills.

Lambda Chapter at A.P.I. and the Chattahoochee Valley alumni chapter were hosts for the meeting of the eight college and 13 alumni chapters of Phi Psi, largest of the textile fraternities. Incumbent national officers who will serve another year are: Willard A. Colby Jr., Emery Industries, Charlotte, N. C., president; George F. Long, Harchem Division, Wallace and Tiernan Inc., Belleville, N. J., vice-president; Mortimer T. Farley, Taylor, Symonds Co., Boston, treasurer; and John T. Wigington, American Cotton Manufacturers Institute Inc., Clemson, S. C., executive secretary.

Synthetic Latex Polymer Seminar

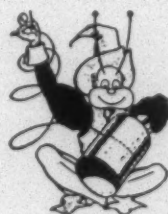
More than 150 persons, many representing the Southern textile industry, attended a technical seminar on synthetic latex polymers conducted by the Goodyear Tire and Rubber Company's chemical division in Atlanta, Ga. The event was held in the Hightower Textile Building at the Georgia Institute of Technology.

Main topics covered in the day-long meeting included

There's no point in pulling extra weight in old flat heads, now that the new Sims Stainless Steel 75 psi reverse dished head Dry Cans* are available. They aren't featherweights, true . . . but they're lighter . . . easier on the bearings . . . require much less horsepower and space. Bearings, drive chains and belts give longer, smoother performance with less costly down time, since the lighter the load, the longer they last. These new Sims Dry Cans give uniform transmission of heat and efficiently eliminate steam condensate. Furnished Teflon-coated if desired.

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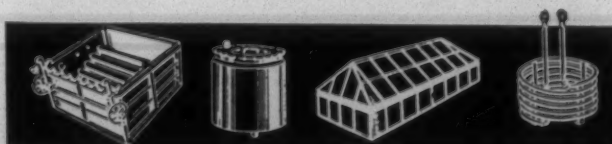


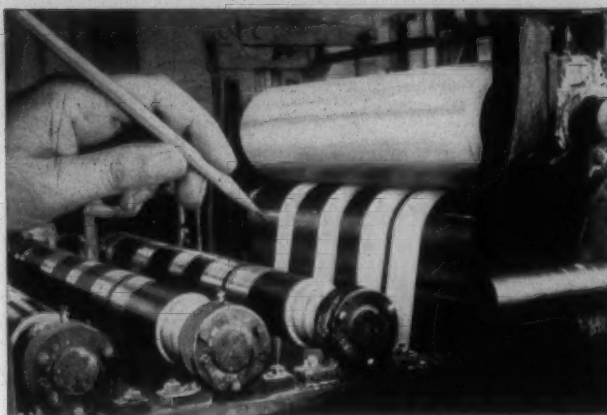
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development, production, evaluation, properties and uses of synthetic latices. Keynote speaker, Herman R. Thies, general manager of the Goodyear Chemical Division, opened the session by presenting a broad review of the relatively new synthetic latex industry. J. D. D'Ianni, assistant to the vice-president in charge of research and development at Goodyear, discussed the "Theoretical Consideration of Polymerization and Latex Characteristics."

Other Goodyear speakers included A. E. Polson, W. C. Smith and E. W. Scott. Topics ranged from a consideration of basic latex properties to typical end-use applications. Question and answer sessions highlighted the morning and afternoon meetings. Non-woven fabric, sized denim, latex backed carpet and upholstery, latex sized fabrics and pigment printed materials illustrated typical textile applications.

Cotton Partially Exempt From Rail Increase

The Interstate Commerce Commission has modified a recent general six per cent rail freight rate increase by ordering a "hold-down" to limit the increase on long hauls of carloads of cotton in bales to nine cents per 100 pounds. In approving the freight rate increase which took effect last March 7, the I.C.C. had specified hold-downs to exempt certain classes of commodities from the straight six per cent increase. At the time this applied principally to fresh fruits and vegetables, grain, coal and lumber—but not cotton.

The commission said it agreed with contentions of certain cotton growers and textile groups that a straight six per cent boost would have further widened the spread in freight rates on cotton moving to mills from competing growing areas in the Southeast and Far West. The commission also noted that cotton shippers had said most baled cotton moves under freight rates which include an allowance to railroads for compressing cotton before it is placed on freight cars. The commission agreed that application of a straight six per cent increase to the total freight rate, which includes compression allowance plus the amount shippers themselves actually pay, would have increased cost to cotton shippers by more than the general six to eight per cent boost. Under the hold-down provision, rates on short haul shipments will be boosted by the straight six per cent, but on the longer shipments the rise will be subject to a ceiling of nine per cent per 100 pounds regardless of distance.

Label Bill Kicks Up Trade Fuss

Strong opposition among trade associations representing manufacturers of textile end-use products as well as converters of fabrics has developed to the Smith Bill, known as H. R. 9987, according to Ralph J. Bachenheimer, chairman of the Joint Committee on Labeling of Textiles and Apparel. This bill, if enacted, would require that all textile products sold to consumers be labeled to show the exact percentage of each fiber present. Failure to do so would subject the manufacturer either to a cease and desist order issued by the Federal Trade Commission after hearing, a court injunction if the commission saw fit to apply to the court for such action, or even criminal penalties if the violations were deemed to be wilful.

It is pointed out that the effort to saddle the textile industry with the burden of labeling each and every article of apparel in this manner is nothing new. Efforts to enact

such legislation in the past have been strongly opposed by every segment of the textile industry. Opposition to the present bill is just as strong among manufacturers of textile products for the following reasons:

(1) The bill implies that the entire textile industry has been practicing deception on the consuming public by either mislabeling its products as to fiber content, or by not labeling them at all. This assumption is not only categorically denied, Mr. Bachenheimer states, but it has also created strong resentment among apparel manufacturing groups that the textile industry should be singled out from among all others for such drastic regulation.

(2) The bill also assumes that consumers need labeling information for their protection. It is pointed out that in many cases goods are already labeled to indicate the component fiber in any particular product, but that in most cases such information is of little guidance to consumers as to the qualities of the product. The opinion is expressed that consumers want to know how an article will launder or wear, or how to iron it rather than the generic name and percentage of each fiber in the product. In fact, leading manufacturers of apparel made of man-made fibers believe that consumers will be more confused than enlightened if the label states this information on each article of apparel.

(3) The law will saddle the textile industry with a considerable cost resulting from the necessity for printing labels, the labor cost of putting them on each garment and the necessity of giving guaranties and record keeping, etc. Any possible benefit to the consumer from such a law would be out of all proportion to the burden and expense to the industry.

(4) Another major objection to this bill is that the Federal Trade Commission already has ample authority to deal with any cases of actual deception represented by mislabeling. It would seem to hardly warrant placing the entire textile industry under such a rigid law in order to get at the few manufacturers who may misrepresent their products as to fiber content. One spokesman for the trade pointed out that the bill in effect treats the failure to label a garment as a form of deception, or "misbranding." In that connection he points out that Canada has enacted a law which requires the manufacturer of textile products to state the exact truth as to fiber content if he labels his products to indicate that information. However, if the manufacturer says nothing as to fiber content, he is not required to label his product. Such a law would seem to be not only most equitable but also would not condemn any manufacturer for practicing deception if he makes no reference to the fiber content of his products.

'Tex' Is New Yarn Count System

Twenty nations represented at the textile meetings of the International Organization for Standardization, Southport, England, voted May 16 on a universal system for express-

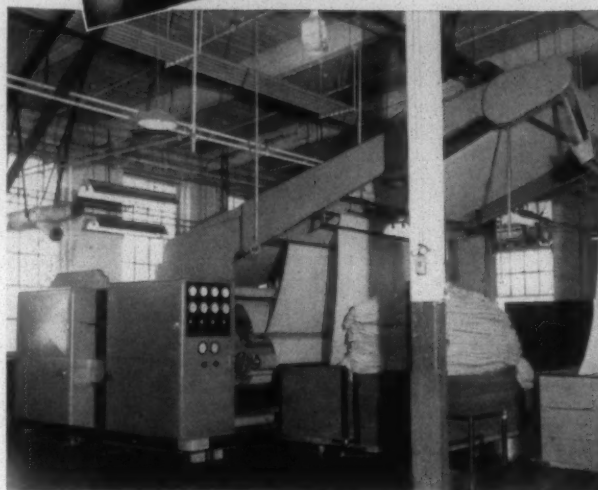
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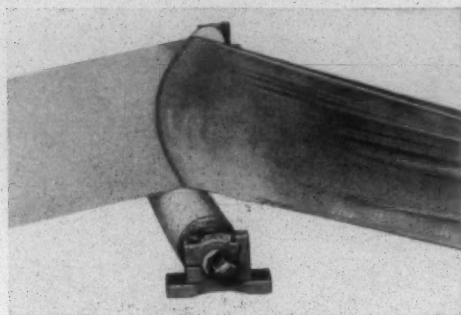
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ing yarn count. The word "Tex," which indicates the yarn weight in grams per 1,000 meters, should be used exclusively by their technologists, the countries agreed. The I.S.O. group stated that this system would displace the multiplicity of yarn numbering systems now used in each country.

This action was supported by representatives of International Wool Textile Organization, International Linen and Hemp Confederation and B.I.S.F.A. (International Bureau for Standardizing Synthetic Fibers).

The 17 United States delegates attending the meetings were nominated by various organizations to represent the American Standards Association, U. S. member of the 37-country organization, at the meetings of I.S.O. Technical Committee 38 on Textiles, held May 11-18. The committee was divided into the following working groups: colorfastness testing, shrinkage of fabrics in washing, systematic reduction of the number of cloth widths, yarn testing, fiber testing and ropes and cordage.

William D. Appel, chief, textiles section, organic and fibrous materials division, National Bureau of Standards, led the United States delegation. Other members of the delegation included T. L. W. Bailey Jr., U. S. Department of Agriculture; Dr. Earl E. Berkley, Anderson, Clayton & Co., Houston, Tex.; George S. Buck Jr., National Cotton Council of America, Washington, D. C.; Louis A. Fiori, U. S. Department of Agriculture; Otto Goedecke, Otto Goedecke Corp., Hallettsville, Tex.; Joel F. Hembree, University of Texas; Dr. Kenneth L. Hertell, University of Tennessee's Agricultural Experiment Station, Knoxville; Charles E. Hilton, American Standards Association, New York; William A. Newell, North Carolina State College, Raleigh; Edward T. Pickard, Kent, Conn.; Dr. Arthur G. Scroggie, E. I. du Pont de Nemours & Co. Inc., Wilmington, Del.; A. L. Vandergriff, Lummus Cotton Gin Co., Columbus, Ga.; Prof. Benjamin L. Whittier, North Carolina State College, Raleigh, N. C.; William L. Wilt, The Sheffield Corp., Dayton, Ohio; Dr. John W. Wright, U. S. Department of Agriculture; Lt.-Col. Carl L. Whitney, Department of the Army, Quartermaster Research and Development Command, Natick, Mass.

The national standards bodies of the following countries are members of the committee on textiles: Australia, Belgium, Brazil, Canada, Czechoslovakia, Denmark, France, Germany, India, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Union of South Africa, United Kingdom, United States and Russia.

Narrow Fabrics Manufacturers 'Splice'

At a three-day meeting at The Drake Hotel, Chicago, a group of leading manufacturers completed formation of an industry organization to be known as the Narrow Fabrics Institute Inc.

John Pepper, assistant general manager, Buffalo Weaving and Belting, was elected chairman of the board; Russell J. Neff, assistant to the president, Phoenix Trimming Co., was elected president. Headquarters have been established at 11 West 42nd Street in New York City and the institute will be managed by the firm of Penn Affiliates.

The major objective of the new organization will be to consider and deal with common intra-industry problems and to foster and further, in every lawful manner, the

interests of the manufacturers and distributors of narrow fabrics and allied products and supplies. Voting membership is available to any person, firm or corporation actively engaged in the manufacture of narrow fabrics products. Associate membership is available to any person, firm or corporation whose principal business consists of buying and selling narrow fabrics for his own account.

In order to more effectively accomplish these objectives, formation of two separate product sections has been authorized by the board, the one a webbing section, and the other a tape section.

Several specific activities already have been initiated. These include (1) Co-operation with government agencies with regard to government specifications; (2) Study and analysis of industry conditions from the standpoint of freight and traffic problems; (3) A credit information exchange; and (4) an order inquiry exchange. A "planning for the future" program has been set in motion to determine how the institute can best serve its members in the areas of industrial relations, uniform cost methods, product promotion and other areas of common industry problems.

Vat Dye Institute To Be Formed

Plans to form a new trade association, to be known as the Vat Dye Institute, were made public June 18 by a group of the country's chemical and dye manufacturers.

The new institute will be incorporated under the laws of the state of New York. The following manufacturers have indicated their intention of becoming members: American Aniline Products Inc.; American Cyanamid Co.; Arnold Hoffman & Co. Inc.; Dow Chemical Co.; E. I. du Pont de Nemours & Co. Inc.; General Aniline & Film Corp.; Metro Dyestuff Corp.; National Aniline Division, Allied Chemical and Dye Corp.; Nyanza Color and Chemical Co. Inc.; Otto B. May Inc.; Peerless Color Co. Inc.; the Pharma Chemical Corp.; and Toms River-Cincinnati Chemical Corp.

The purposes of the Vat Dye Institute, according to its proposed charter, will be to increase and expand the consumption of vat dyes by promoting their proper end uses through advertising and educational programs; to participate in co-operative programs with all other persons concerned in developing information to promote the proper end use of vat dyes; and generally to do all things to foster good relations between the dye industry of this country and converters, manufacturers, retailers, consumers and all other persons concerned with the use of vat dyes in textiles.

C.M.A.G. Names Group Officers

Frank L. Carter, secretary of the Cotton Manufacturers Association of Georgia, has announced the following appointments to three important groups of the association:

Personnel managers division—James E. Boyers, Thomaston Mills, Thomaston, chairman; John W. Alexander, U. S. Rubber Co., Hogansville, vice-chairman; and Mr. Carter, secretary. *Office executives division*—L. C. Cahill, Coats & Clark Inc., Albany, chairman; E. A. Rambow, Clarkesville Mill, a division of United Merchants & Manufacturers, Clarkesville, vice-chairman; and Mr. Carter, secretary. *Cotton buyers division*—Ferrell T. Towns, Callaway Mills Co., Pineview Division, LaGrange, chairman; F. M. Arthur, Fulton Bag & Cotton Mills, Atlanta, vice-chairman; and Mr. Carter, secretary.



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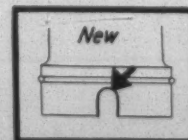
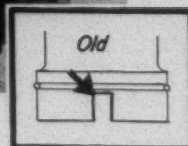
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Glass Fiber Screen Weavers Organize

Weavers of fibrous glass insect screening have organized a trade association within The National Federation of Textiles Inc., Andrew J. Sokol, president of the federation, announced June 12.

The group, to be known as the Glass Fiber Screen Weavers Group, elected George H. Day II, vice-president of Chicopee Mills Inc., as chairman; C. A. Comfort, vice-president of the Exeter Mfg. Co., as vice-chairman; Edmund Wellington Jr. as secretary. Other founder members are R. F. Clark of Hess-Goldsmith & Co.; Charles G. Smith of Plastic Woven Products Inc.; J. Kevin Ott of the J. M. P. Ott Mfg. Co., weavers for Lockset Screening Co.; J. P. Schwebel of J. P. Stevens & Co. Inc.

"Increasing trade and consumer demand for fiber glass insect screening led to our organization," said Mr. Day. "A first project of the group will be development of quality standards for the industry. We plan to seek the co-operation of producers of fibrous glass yarns in developing these standards."

Future plans of the group, Mr. Day reported, include a public relations program of consumer education including institutional advertising, publicity and sales tools directed through varied communications media.

Woolen & Worsted Woven Goods—1st Quarter

Woolen and worsted fabric production during the first quarter of 1956 was 81.6 million linear yards. This was six per cent above the fourth quarter 1955 output, and 11 per cent above the comparable period of last year, according to the Bureau of the Census.

The output of women's and children's clothing fabrics at 39.0 million finished linear yards was two per cent above that of the previous period, and 23 per cent above the output of the first quarter 1955. Men's and boys' clothing fabric production increased 14 per cent during the first quarter to 38.3 million finished linear yards. Output of non-apparel fabrics was eight per cent below the previous quarter. Production of blanketing decreased 17 per cent to approximately 2.2 million yards. Production of transportation upholstery and other non-apparel fabrics increased 12 per cent compared to the fourth quarter 1955 but decreased one per cent compared to the first quarter of this year.

Cotton Consumption And Spinning—May 1956

The Bureau of the Census, U. S. Department of Commerce, reports that cotton consumption for the period of May averaged 35,698 bales for each working day. This compared with an average of 39,079 bales for the corresponding period a year ago, and with 36,656 bales for the April period this year.

The daily average consumption of lint was 5,499 bales compared with 5,129 a year ago and 5,633 for April. Consumption of cotton for the entire month of May totaled 713,940 bales compared with 721,577 bales in April and 704,029 bales a year ago.

The bureau reports also that the cotton-spinning industry operated during May at 139.6 per cent of capacity on a two-shift, 80-hour week. This compares with 142.2 per cent during April and 135.9 per cent during May 1955. Spinning spindles in place May 26 totaled 21,926,000, of which 19,276,000 were active consuming cotton on the last working day of the month, compared with 21,960,000

and 19,290,000 for April 28 and 22,284,000 and 18,302,000 a year ago.

April Wool Consumption And Stocks

The April rate of fiber consumption on the woolen and worsted systems was ten per cent above the March rate and approximately the same percentage increase over April 1955, the Bureau of the Census reports. The weekly average raw wool consumption during April was 9,288 thousand pounds (scoured basis), or six per cent above the March level, and 13 per cent above that of April 1955. The rate of consumption of carpet class wool increased five per cent compared to the previous month and increased 19 per cent compared to April 1955, while consumption of apparel class wool was six per cent above the March level and ten per cent above that of April of last year. Consumption of fibers other than raw wool averaged 6,269 thousand pounds per week, or 16 per cent above the March average and six per cent above that of April of last year.

Synthetic Fiber Production Still Rising

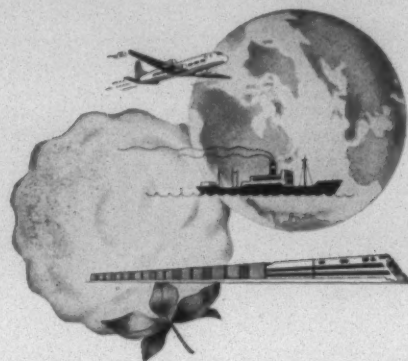
An annual survey of world production of man-made textile fibers reveals that the total output in 1955 was 5,579,000,000 pounds, a rise of 14 per cent over the 4,902,000,000 pounds produced in 1954. The 1955 total, highest on record, was made up of 4,533,000,000 pounds of rayon, 484,000,000 pounds of acetate and 562,000,000 pounds of non-cellulosic fibers.

Rayon output increased 12½ per cent above the previous year and acetate output rose by seven per cent, while production of the non-cellulosic fibers increased 35½ per cent. The United States produced 67½ per cent of all non-cellulosic fibers in 1955, compared with 69 per cent in the previous year.

Comparing the world output of man-made fibers with that of cotton, wool and silk, *Textile Organon* notes that the man-made fibers in 1955 represented 20½ per cent of the total world textile fiber output compared with 19½ per cent in 1954 and only 12½ per cent in the first post-war year 1946.

The 1955 production of rayon and acetate filament yarn throughout the world totaled 2,296,000,000 pounds, 12½ per cent above the 1954 output of 2,037,000,000 pounds. Rayon and acetate staple+tow output last year came to 2,721,000,000 pounds, an increase of 11 per cent over the 1954 level.

The United States continues as the world's largest producer of rayon and acetate with a 1955 output of 1,261,000,000 pounds or 25 per cent of the world total. Japan again occupied the second position, producing 732,000,000 pounds or 14½ per cent of the world total. However, the *Organon* points out that Japan is the world's leading producer of rayon and acetate staple+tow, a position which



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she has held since 1953; Japanese output of rayon and acetate staple in 1955 was 536,000,000 pounds compared with the second-ranking United States total of 396,000,000 pounds.

Other nations whose rayon and acetate output last year exceeded 100,000,000 pounds were Western Germany with 487,000,000 pounds or 9½ per cent of the world total, the United Kingdom 434,000,000 pounds or 8½ per cent, Italy 289,000,000 pounds or six per cent, France 243,000,000 pounds or five per cent and Spain 102,000,000 pounds or two per cent. The combined output of these seven largest producers last year was 3,548,000,000 pounds or 70½ per cent of world output.

World capacity for man-made fibers by the end of 1957 will amount to 7,874,000,000 pounds if all planned expansions are realized, according to the *Organon*. The total capacity will include 6,881,000,000 pounds of rayon and acetate and 993,000,000 pounds of the non-cellulosic fibers. The *Organon* goes on to say that of the anticipated capacity in rayon and acetate, the seven world leaders will essentially maintain their relative positions and by the end of 1957 account for 70 per cent of total world output.

The viscose rayon process of manufacture continues to be the most widely used throughout the world. Counting the Iron Curtain countries as one, there are 32 countries producing or planning to produce viscose filament yarn and of these 20 produce or plan to make both regular and high tenacity yarn. Nineteen countries are now making or plan to make acetate filament yarn. Cuprammonium yarn continues to be produced only in Italy, Japan, West Germany and the United States.

Twenty-seven nations are producing viscose staple+tow and 13 nations are now producing or plan to produce acetate staple+tow. The only nations producing cuprammonium staple and tow are Italy, Western Germany and the United States.

The largest producing nations of rayon and acetate yarn and staple depend mainly on the domestic markets for their sales, the *Organon* points out. The United States, for instance, with a domestic production of 1,261,000,000 pounds in 1955 exported only 28,000,000 pounds. This country, however, imported 174,000,000 pounds and had available 1,407,000,000 pounds for consumption. Japan, the world's second largest producer, exported only 22,000,000 pounds in the form of yarn or staple out of a total of 732,000,000 pounds produced, and had negligible imports.

The *Organon* notes further that many of the medium-sized countries which make sizable quantities of cellulosic fibers rely heavily on the export trade as an outlet since their own domestic market is relatively small. Belgium, for instance, exports 44,000,000 pounds out of 70,000,000 pounds produced; the Netherlands exports 53,000,000 pounds of her 97,000,000-pound output, and Switzerland exports 37,000,000 pounds out of 48,000,000 pounds produced.

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BY— 6918 fill motion slide
L— 72828 kick back pawl spring
L— 28557 take up clutch spring
L— 52101 clutch level
L— 30169 take up clutch spring collar
L— 86597 slack pawl stop
L— 73826 kick back spring case
L— 67486 kick back spring
L— 52094 take up worm wheel
L— 52110 take up shaft bearing R.H.
L— 44843 change gear support hub
L— 70818 take up shaft gear bracket
L— 57618 take up clutch lever link end
L— 72829 kick back pawl spring stud
L— 52135 kick back pawl studs
L— 72827 kick back pawl
L— 52458 change gear supports
L— 80345 take up shaft collar
W.S.M.— 16258 knock off rod end
BY— 5612 start rod arm
BY— 6722 fill feeler slide
BY— 7208 L.H. fill motion stand
BY— 7191 fill feeler stand
L— 82360 release lever
L— 80638 fill cam foll dog
L— 75677 fill motion finger
L— 75679 fill motion finger end
L— 86597 slack pawl stop
L— 70743 take up roll bearing
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L— 70744 L.H. take up roll bearing
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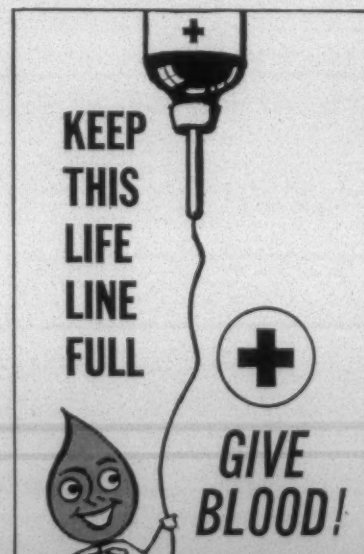
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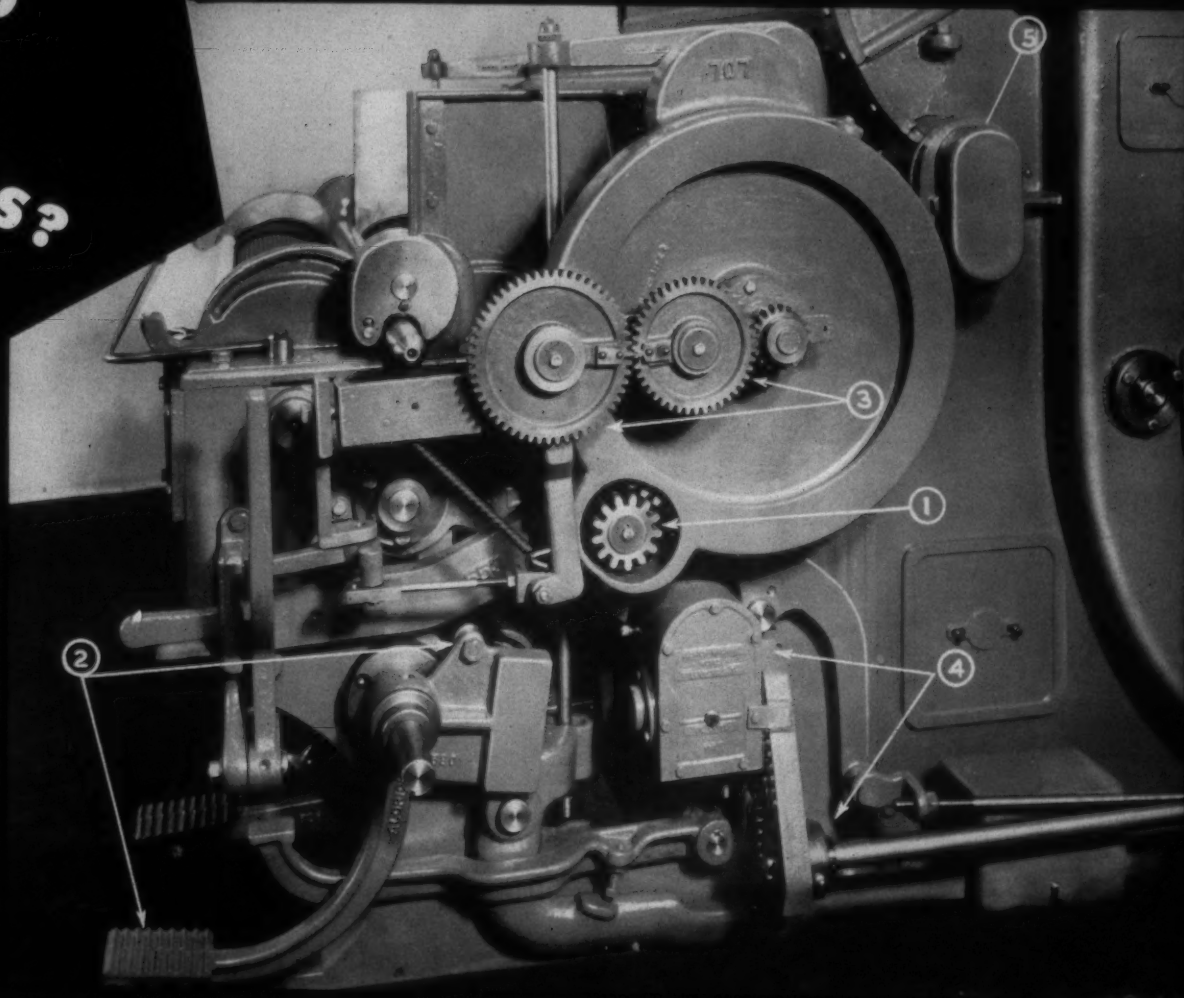
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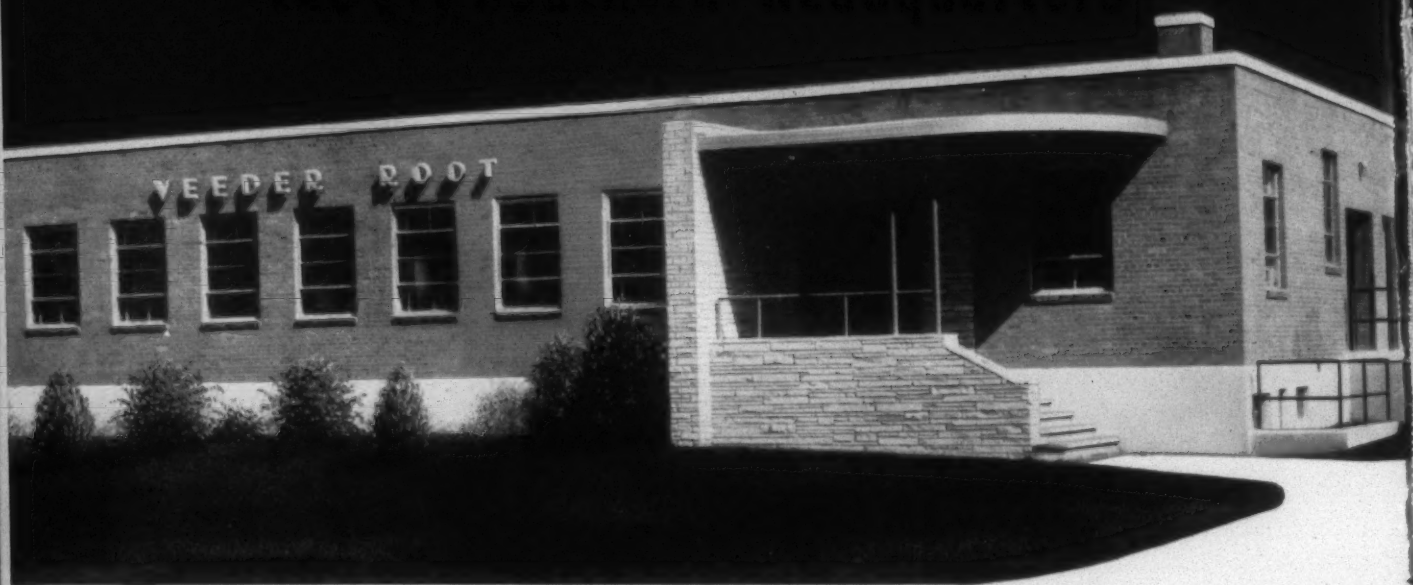
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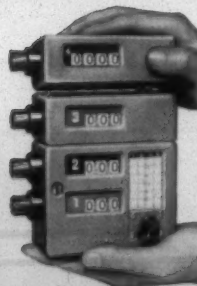
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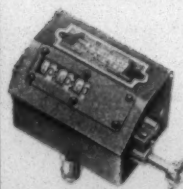


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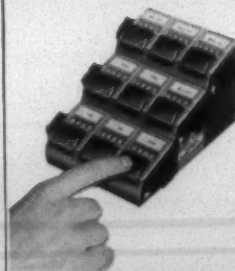
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